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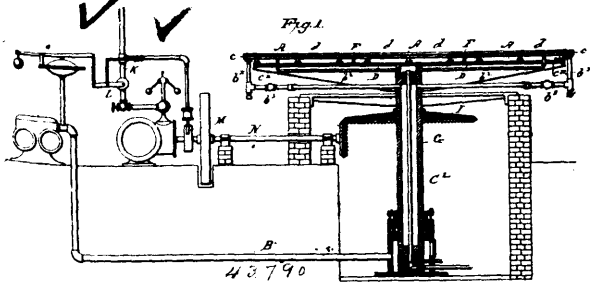
INVENTIONS PATENTED.

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

No. 43,790. Table. (*Table.*)

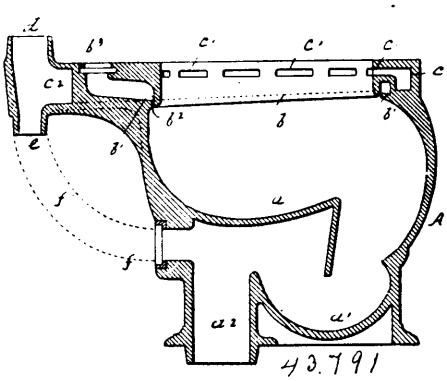


George Augustus Marsh, Sandusky, Ohio, U.S.A., 1st August, 1893; 6 years.

Claim.—1st. A section for a glass holding table, made up of upper and lower portions having an intervening plate, the parts being connected with each other and provided with passages which connect with liquid supply pipes and air exhaust pipes, substantially as shown and for the purpose set forth. 2nd. A section adapted to form a part of a glass holding table, having registering inner projecting walls, a dividing plate and packing therefor, and means for connecting the parts of each section to each other and to a support, substantially as shown and for the purpose set forth. 3rd. In an apparatus for grinding, polishing and smoothing glass, the combination of a table top and mechanism for holding the glass thereon by atmospheric pressure, a liquid supply pipe leading to the table top and adapted to convey liquid thereto, for the purpose set forth, the eduction openings of the sections having spring actuated valves for permitting a circulation of water in the glass holding table when forced therein beyond a predetermined pressure, for the purpose set forth. 4th. A section for a glass holding table made up of upper and lower portions having an intervening plate, the parts being connected to each other and provided with passages which connect with liquid supply pipes and air exhaust pipes, the exterior of the upper part having raised supports, substantially as shown. 5th. A glass holding table, having a top made up of a plurality of sections, which are composed of upper and lower portions divided horizontally into chambers, the upper chamber having induction and eduction openings, the lower chamber having an opening connected with air exhaust mechanism, and means for connecting the parts of the sections to each other and to a support, substantially as shown and for the purpose set forth. 6th. A glass holding table made up of a series of hollow sections supported so that the upper surface thereof will be on the same plane, each section having marginal walls with a water channel and intermediate projecting portions with spaces between them, and an air exhaust opening common to each section, substantially as shown and for the purpose set forth. 7th. In a glass holding table, the combination of a hollow shaft, the lower end thereof being apertured and enclosed in a suitable chamber to which an air exhaust pipe is connected, a liquid supply pipe located within the hollow standard and connected with the liquid supply, substantially as shown and for the purpose set forth. 8th. In a glass grinding and polishing table, the combination of a support maintaining a top in position, said top being divided horizontally into air and liquid chambers, pipes connecting said chambers with a shaft, and pipes leading from the shaft, for the purpose set forth. 9th. A glass grinding and polishing table, having a chamber adjacent to its upper surface, said chamber being connected with a heating or cooling source, whereby the glass placed on the table can be cooled or heated, substantially as set forth. 10th. A glass grinding or polishing table having a chamber said chamber being connected with a heat supply. 11th. In combination with a table for grinding or polishing glass, having on its surface a series of cells connected with a vacuum chamber, a chamber beneath the upper surface of the table, said chamber being adapted to receive a cooling medium, for the purpose set forth. 12th. In a grinding or polishing table for plate glass, the combination of a table having the surface made up of vacuum cells, each cell being connected directly with an air chamber beneath the vacuum cells, and a chamber for the circulation of a cooling medium between the air chamber and vacuum cells, substantially as set forth. 13th. In a glass grinding or polishing table having a top with a multiplicity of independent cells, each connected with an air exhaust mechanism, so as to retain the glass thereon, by a vacuum or atmospheric pressure, a compartment formed in the table and adapted to receive a cooling medium, for the purpose set forth. 14th. In a table for holding plate glass for the purpose set forth, a top having a raised circumferential wall and a multiplicity of air chambers or cells each having marginal walls, an air chamber communicating with the top, and a cooling chamber interposed between the air chamber and the top of the table, substantially as shown. 15th. In a glass holding table, a top having a raised circumferential wall so as to provide water channels, raised supports disposed over the top of the table, the cells or vacuum chambers so formed being connected to a chamber by hollow supports or stays, and an interposed chamber for the reception of a circulating liquid cooling or heating medium, located between the air and vacuum cells, said medium being adapted to absorb or apply heat to the table and glass, for the purpose set forth. 16th. A hollow glass holding table having a multiplicity of apertures in close proximity to each other, channels surrounding said apertures, a liquid supply connecting with said channels, and an air exhaust pipe connecting with the air chamber in the table, the same being adapted to be used with a suitable packing for retaining a plate or plates of glass thereon when the air is exhausted from the table, substantially as set forth. 17th. In combination with the hollow glass supporting table, for the purpose set forth, a series of apertures or perforations in substantially close proximity to each other, channels surrounding each of said apertures, so as to provide a multiplicity of vacuum cells, a reticulated packing adapted to cover the liquid channels, and means for exhausting the air from the cells, substantially as set forth. 18th. In a glass supporting table, a chamber and apertured upper plate having a series of channels surrounding each aperture, an exhaust pipe connected with the chamber, and a water supply pipe leading into the channels, substantially as shown, and for the purpose set forth. 19th. A glass holding table made up of a series of hollow sections supported so that the upper surface thereof will be on the same plane, each section having a multiplicity of apertures, air exhaust mechanism for forming vacuum cells, a support or supports surrounding each aperture or vacuum cell, an exhaust pipe

connected to the chamber of each section, and means for producing a vacuum therein when a plate is placed over the cells, together with means, as a plug or plugs, for closing the apertures of one or more of said cells, substantially as shown, and for the purpose set forth. 20th. The combination, with a glass polishing or grinding mechanism, of a table, a shaft having an air duct which communicates with air exhaust mechanism and with the table, whereby the plate or plates of glass are held on the table by a vacuum or atmospheric pressure, for the purpose set forth. 21st. The combination, with a glass polishing or grinding mechanism, of a hollow supporting table the upper plate or face of which is provided with a series of perforations or apertures, raised walls surrounding said perforations or apertures, forming with the glass independent vacuum chambers which communicate directly with the vacuum chamber of the supporting table and exhaust mechanism, and a water supply having branch pipes which communicate with channels surrounding each aperture or vacuum cell, substantially as set forth. 22nd. In a glass grinding or polishing machine, the combination of a hollow supporting table, a hollow standard connecting therewith by pipes, the lower end of said standard being enclosed by an air chamber, a pipe connecting said air chamber to an exhaust mechanism, and mechanism for connecting the hollow standard with driving mechanism, so that the table and standard can be rotated, substantially as shown, and for the purpose set forth. 23rd. In combination, with a revoluble grinding table upon which the glass plates to be ground are held by a vacuum or air exhaust, a motor for turning said table, an air exhaust mechanism connected to the table and an automatic brake and power supply mechanism adapted to be operated when the vacuum is destroyed in the table, so as to cause a stoppage of the motor and brake upon the driving shaft which revolves the table, substantially as shown. 24th. In combination, with a glass holding table having a series of apertures or vacuum cells in close proximity to each other, water channels surrounding each vacuum cell, and an absorptive packing-shaped to lie over the water channels, substantially as shown. 25th. In a glass grinding or polishing table, a plurality of bars or strips connected to each other to move in unison and means for elevating said bars or strips above the surface of the table upon which the glass rests, for the purpose set forth. 26th. In a glass holding table having spaces in its upper surface, bars or strips adapted to lie within said spaces and means for raising or lowering said bars, substantially as and for the purpose set forth. 27th. In combination, with a glass grinding or polishing table made up of a series of sections located adjacent to each other, so as to provide spaces between said sections, bars located within said spaces and connected to means for raising and lowering the same, the upper edges of said bars having a covering, substantially as shown, and for the purpose set forth.

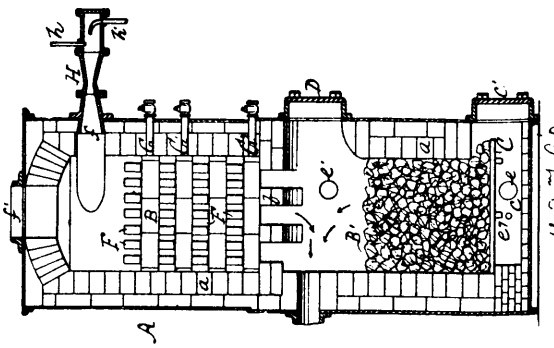
No. 43,791. Water Closet. (*Latrine.*)



Arthur O'Brien, Helena, Montana, U.S.A., 1st August, 1893; 6 years.

Claim.—1st. In a water closet, the combination with a bowl, of a channel formed integrally therewith and communicating with the interior of the bowl through a series of slots, a passage forming a continuation of said channel and arranged in a line coincident therewith, a vent and an overflow forming a continuation of said passage, an overflow pipe connected with the overflow, a flushing rim below said channel, and a water supply therefor, the combination permitting a ventilation of the bowl and soil pipe and the carrying off of the overflow through the same channel. 2nd. In a water closet adapted for prisons or the like, the combination with a bowl, of a channel formed integrally therewith and communicating with the interior of the bowl through a series of slots, an opening leading from said channel and arranged in line coincident with the channel, a coupling adapted to be passed through a wall or other support and connected with said opening, openings in said coupling having connections with a vent pipe and an overflow pipe, a flushing rim and a water supply therefor, and an opening in the lower portion of the bowl for connection with the soil pipe, substantially as and for the purposes set forth.

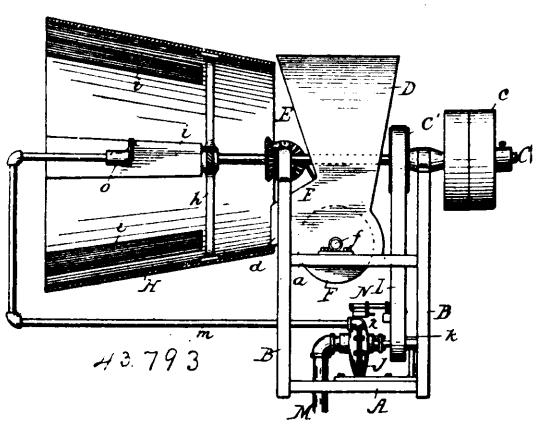
No. 43,792. Process of Manufacturing Gas.
(*Procédé de fabrication du gaz.*)



Charles Lincoln Fitch, Brooklyn, New York, U.S.A., 1st August, 1893; 6 years.

Claim.—The process of forming a fixed illuminating gas, consisting in heating a converting chamber by passing the products of combustion through it from a bed of incandescent fuel, introducing a fine spray of hydrocarbon and steam into and passing it through said converting chamber in a direction opposite to that in which the products of combustion pass through it thereby forming a fixed hydrocarbon gas, and simultaneously with the passage of the hydrocarbon spray through the converting chamber, passing steam through the bed of incandescent fuel employed in heating the converting chamber, thereby forming a water gas which mingles at the surface of the incandescent fuel with the hot hydrocarbon gas as it escapes from the converting chamber to form an illuminating gas without further fixing, substantially as set forth.

No. 43,793. Tobacco Flavouring Machine.
(*Machine pour aromatiser le tabac.*)



James Miles King, Danville, Virginia, U.S.A., 1st August, 1893; 6 years.

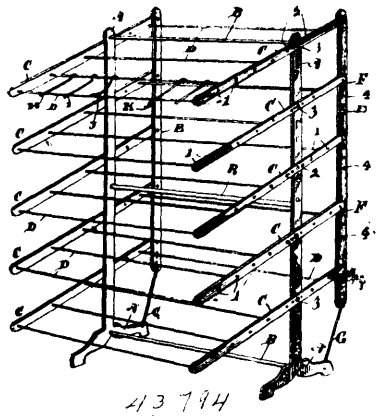
Claim.—1st. The combination, in a tobacco flavouring machine, of a rotary flaring drum, provided with driving mechanism, a feed hopper emptying into the smaller end of the drum, and a spraying device located within the drum, whereby the tobacco is sprayed and the leaves separated as they pass through the drum, substantially as set forth. 2nd. The combination, in a tobacco flavouring machine, of a horizontal shaft provided with a flaring drum, a feed hopper communicating with the smaller end of the drum, a spraying nozzle located within the drum, a pump having a pipe leading to the nozzle and driving mechanism, substantially as described, connected to the drum and pump shafts, whereby the pump is actuated in the manner and for the purpose set forth.

No. 43,794. Merchandise Exhibiting Rack.
(*Appareil pour exhiber les marchandises.*)

William High, Morrison, Illinois, U.S.A., 1st August, 1893; 6 years.

Claim.—1st. The combination of the standards A, bar E, arm C, transversely pivoted thereon and provided with openings *i*, rods D, adapted to be optionally attached to the rear ends of arms C, and the locking rod G, rigidly attached at its lower end to the base of the standards A, and adjustably attached at its upper end to said

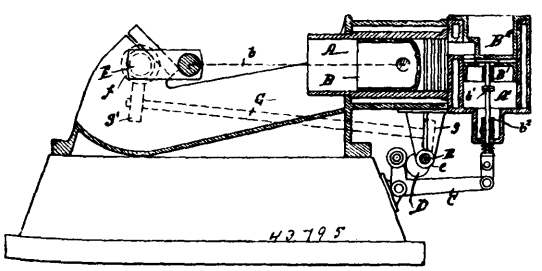
bar E, substantially as shown and for the purpose specified. 2nd. The combination, of the standards A, vertical series of arms C,



provided with openings 2, and pivoted through said openings to said standards, connecting bar E, pivoted directly to the upper and lower of said arms, and toggle F, pivotally connecting said bar E, and the intermediate arms C, substantially as shown and for the purpose described.

No. 43,795. Explosive Engine.

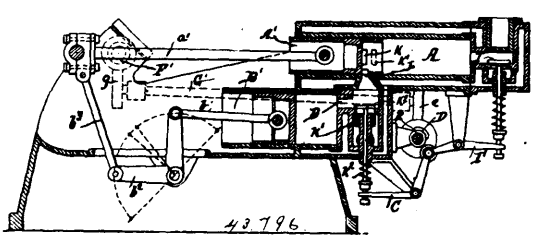
(*Machine explosive.*)



Hugh Webster Williams, of Victoria, British Columbia, Canada, 1st August, 1893; 6 years.

Claim.—1st. In an explosive engine, a secondary or supplementary piston, for expelling the products of combustion, substantially as herein described. 2nd. In an explosive engine having a cylinder, a power piston and a combustion chamber in communication with the cylinder, a reciprocating piston operating in the combustion chamber for expelling the products of combustion, substantially as herein described. 3rd. In an explosive engine, having a cylinder, a power piston and a combustion chamber, in communication with the cylinder, a reciprocating piston operating in the combustion chamber for expelling the products of combustion, and an exhaust valve in said piston, substantially as herein described. 4th. In an explosive engine, having a cylinder with power piston and a communicating combustion chamber at one end, a reciprocating piston in said chamber and operating at right angles to the power piston to expel the products of combustion, substantially as herein described. 5th. In an explosive engine, having a cylinder, with power piston and a communicating combustion chamber at one end, a reciprocating piston in said chamber and operating at right angles to the power piston to expel the products of combustion, and an exhaust valve in said piston, substantially as herein described. 6th. In an explosive engine, the combination of the cylinder having the combustion chamber at one end, the power piston in the cylinder. the products-expulsion piston in the combustion chamber, the exhaust valve in said expulsion piston, having a stem and the means for actuating said piston and valve consisting of the lever C, and power transmitting connections thereto from the engine shaft, and the stop collar on the valve stem, substantially as herein described. 7th. In an explosive engine, the combination of the cylinder having the combustion chamber at one end, the power piston in the cylinder, the products-expulsion piston in the combustion chamber, the exhaust valve in the expulsion piston, the gas and air inlet valves communicating with the combustion chamber, and the means for operating the several valves, consisting of the counter shaft deriving power from the engine shaft, and having cams and the elbow levers operated by said cams and connected with said valves, substantially as herein described. 8th. In an explosive engine, the oscillating throttle valve in the gas inlet and connections from a governor whereby it is operated, substantially as herein described. 9th. In an explosive engine, the combination of a gas admission valve to the cylinder, the throttle in the gas inlet in advance of the gas admission valve and connections with the throttle valve from a governor whereby it is operated, substantially as herein described. 10th. In an explosive engine, the combination of a gas admission valve and connections from the engine shaft whereby it is operated, a throttle valve in the gas inlet in advance of the admission valve, a governor and connections to operate the throttle valve, and suitable connections with the operating devices of the gas admission valve, whereby the latter is automatically thrown into and out of action by the governor simultaneously with the operation of the throttle valve, substantially as herein described. 11th. In an explosive engine, the combination of a gas admission valve, and connections from the engine shaft whereby it is operated, a throttle valve in the gas inlet in advance of the admission valve, a governor and connections to operate the throttle valve, and suitable connections with the operating devices of the gas admission valve, whereby the valve is automatically thrown into and out of action by the governor simultaneously with the operation of the throttle valve, said connections consisting of the lever of the throttle valve, the operating lever H, and the swinging finger carried by the lever H, and connected with the throttle valve lever and operating into and out of contact with the stem of the gas admission valve, substantially as herein described. 12th. In an explosive engine, the air admission valve, the gas admission valve and the throttle valve in the gas inlet, in combination, with the lever H, deriving power from the engine shaft and connected with the stem of the air admission valve, the swinging finger on said lever adapted to move into and out of contact with the stem of the gas admission valve, the lever of the throttle valve connected with the swinging finger, and the governor and connections therefrom to the throttle valve lever, substantially as and for the purpose herein described.

No. 43,796. Explosive Engine. (*Machine explosive.*)



Hugh Webster Williams, of Victoria, British Columbia, Canada, 1st August, 1893; 6 years.

Claim.—1st. In an explosive engine, the combination of a main or power cylinder, and a power piston therein, a supplementary cylinder with a products expulsion piston therein deriving its motion by connections from the engine shaft, a communicating passage between the two cylinders having a port controlled by the power piston, and an exhaust valve from said communicating passage, operated by connections from the engine shaft, substantially as herein described. 2nd. In an explosive engine, the combination of a main or power cylinder, and a power piston therein, a supplementary cylinder with a products expulsion piston therein, deriving its motion by connections from the engine shaft, a communicating passage between the two cylinders having a port controlled by the power piston, outlet passages to the outer air from the power cylinder and having ports in advance of the port of the communicating passage between the two cylinders, said outlet passage ports being controlled by the power piston, and an exhaust valve from said communicating passages and operated by connections from the engine shaft, substantially as herein described. 3rd. In an explosive engine, the combination of a main or power cylinder, and a power piston therein, a supplementary cylinder of greater capacity with a products expulsion piston therein, deriving its motion by connections from the engine shaft, a communicating passage between the two cylinders having a port controlled by the power piston, outlet passages to the outer air from the power cylinder and having ports in advance of the port of the communicating passage between the two cylinders, said outlet passage ports being controlled by the power piston, and an exhaust valve from said communicating passages into the outlet passages and operated by connections from the engine shaft, substantially as herein described.

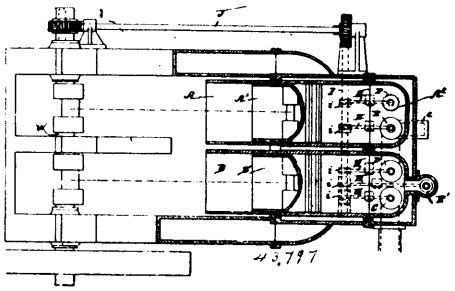
No. 43,797. Explosive Compound.

(*Composé explosif.*)

Hugh Webster Williams, Victoria, British Columbia, Canada, 1st August, 1893; 6 years.

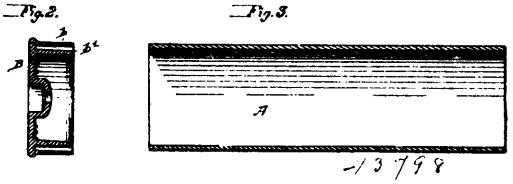
Claim.—1st. In an explosive engine, the combination of a power cylinder and an expansion cylinder, each having a piston connected with the engine shaft and operating in unison in the same directions, a communication valve between the adjacent ends of the two cylinders, valve controlling the admission of a combustible charge of gas and air to the power cylinder, an air admission valve to the expansion cylinder and an exhaust valve therefrom, and means for operating said valve, substantially as herein described. 2nd. In an explosive engine, the combination of a power cylinder and an ex-

pansion cylinder, each having a piston connected with the engine shaft and operating in unison in the same directions, a combustion



chamber in the end of the power cylinder, a communication passage with controlling valve between the adjacent end of the expansion cylinder and the combustion chamber, an air passage with controlling valve into the combustion chamber of the power cylinder, a gas inlet passage with controlling valve into the air passage, an air admission valve to the expansion cylinder and an exhaust valve therefrom, and means for operating said valves, substantially as herein described.

No. 43,798. Cartridge Shell. (*Etui de cartouches.*)



Charles E. Overbaugh, Jersey City, New Jersey, U.S.A., 1st August, 1893; 6 years.

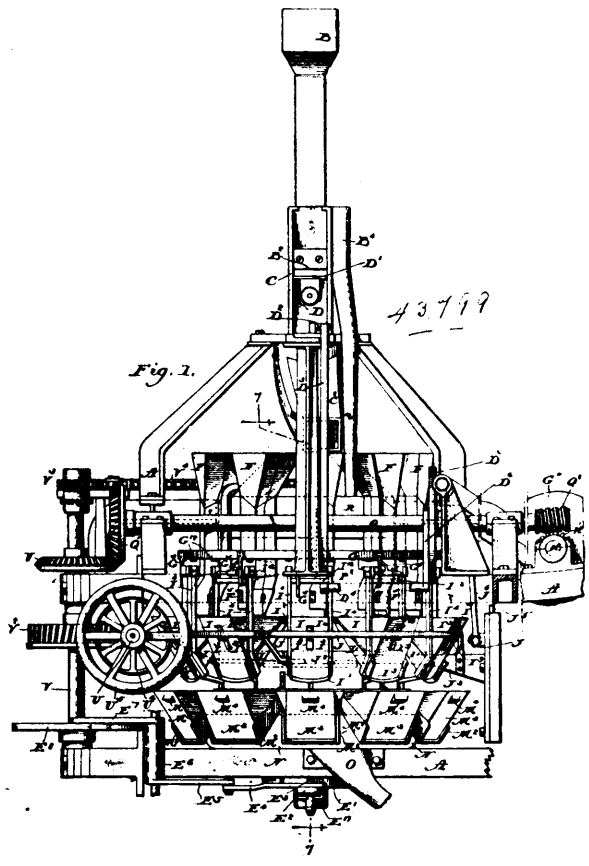
Claim.—1st. In a cartridge shell, the combination of a paper body, and a metal breech portion having the integral jaws movable laterally one towards the other for compressing a portion of and permanently clamping the paper body, the said paper body having an annular head formed at its end to engage an annular shoulder of a jaw, substantially as specified. 2nd. In a cartridge shell, the combination, with a paper body having an inwardly turned lip or flange, of a metal breech portion having a jaw surrounding the body for a part of its length, and provided with a central bevelled opening, and a second metal breach portion having an outwardly swaged hub, the lip or flange of the paper body being held between the two metal breech portions, substantially as set forth. 3rd. In a cartridge shell, the combination, with a paper body having an inwardly turned lip or flange, of a metal breech portion connected to the body and having a central bevelled opening, and a second metal breech portion having the undercut S, the undercut S^1, and the hub portion, all arranged substantially as set forth.

No. 43,799. Automatic Weighing Machine.

(*Bascule automatique.*)

Henry Eyster Smyser, Germantown, Philadelphia, Pennsylvania, U.S.A., 1st August, 1893; 6 years.

Claim.—1st. In an automatic weighing machine, the combination with a series of stationary scales, of a series of receptacles adapted to receive the weighed charges from the scales, and mechanically driven mechanism for automatically dumping the receptacles in regular succession. 2nd. In an automatic weighing machine, the combination with a series of stationary scales, of a series of carriers adapted to receive the weighed charges from the scales, and movable to convey the charges away, and mechanism for automatically dumping the carriers successively. 3rd. In an automatic weighing machine, the combination with a series of stationary scales of a corresponding series of movable carriers, mechanism for dumping the scale pans simultaneously into the carriers, and mechanism for dumping the carriers successively at a given point. 4th. In an automatic weighing machine, the combination with a circular series, of a stationary scales, of a circular series of carriers adapted to receive the weighed charges from the scales, a rotary shaft on which said carriers are mounted, and mechanism for dumping the carriers successively. 5th. In an automatic weighing machine, the combination with a circular series of stationary scales, of a circular series of carriers adapted to receive the weighed charges from the scales, intermittent driving mechanism for moving the carriers step by step from one scale to the next, mechanism for dumping the scale pans simultaneously, whereby all the carriers are filled, and a mechanism for dumping the carriers as they reach a given point, whereby they are successively emptied. 6th. In an automatic weighing machine, the combination of a series of stationary scales, means for supplying material thereto, means operated by the deflection of the scale beams for cutting off the supply there-



from, means for simultaneously dumping the scale pans, a series of receptacles adapted to receive the weighed charge dumped from the pans, and a dumping mechanism for dumping the receptacles successively. 7th. In an automatic weighing machine, the combination of a series of stationary scales, a measuring mechanism for delivering charges of the material to be weighed at intervals, and a movable chute over said scales arranged to receive the charges from said measuring mechanism, and moving to deliver the successive charges to the respective scales successively. 8th. In an automatic weighing machine, the combination of a circular series of stationary scales, a revolving chute mounted above them, and movable to deliver into them in succession, a mechanism for feeding charges of material to be weighed into said chute, a series of receptacles arranged to receive the weighed charges from the respective scales, and means for dumping said receptacles in succession. 9th. In an automatic weighing machine, the combination of a series of stationary scales, a corresponding series of stationary chutes delivering into the respective scale pans, mechanism for dumping charges of material to be weighed into said chutes, mechanism for dumping the scales, a series of receptacles adapted to receive the weighed charges therefrom, and mechanism for automatically dumping the receptacles successively. 10th. In an automatic weighing machine, the combination of a series of stationary scales, a series of stationary chutes leading to the respective scale pans, means for supplying material to the pans through said chutes, means for conducting an additional supply to the pans, operated by the deflection of the scale beams for cutting off the supply from each pan upon its descent under full weight, a series of carriers adapted to receive the weighed charges from the scales, and means for dumping said carriers successively. 11th. In an automatic weighing machine, the combination of a series of stationary scales, a corresponding series of stationary chutes delivering into the respective scale pans, a measuring mechanism operating intermittently to deliver measured charges of material and a movable chute receiving said charges therefrom and coinciding in its successive movements with the successive stationary chutes, whereby it delivers the measured charges to the stationary chutes in succession. 12th. In an automatic weighing machine, the combination of a series of stationary scales, a corresponding series of stationary scales, a corresponding series of stationary chutes delivering into the respective scale pans, and having mechanism for closing them, means for delivering charges of material into the chutes successively, and mechanism for automatically dumping the contents of the several chutes simultaneously into the scale pans. 13th. In an

automatic weighing machine, the combination of a series of stationary scales, a corresponding series of stationary chutes delivering into the respective scale pans, and having gates for closing them, mechanism for charging said chutes with material to be weighed, while their gates are closed, so that the charges to be weighed are stored in said chutes, mechanism for opening said gates to dump the stored charges from the chutes into the scale pans, and mechanism for dumping the scale pans. 14th. In an automatic weighing machine, the combination of a series of stationary scales, a corresponding series of stationary chutes delivering into the respective scale pans, a measuring mechanism operating intermittently to deliver charges of material, an intermittently revolving chute for conducting the charges from said measuring mechanism to the stationary chutes successively, an intermittently revolving series of carriers adapted to receive the weighed charges dumped from the scale pans, and means for dumping said carriers. 15th. In an automatic weighing machine, the combination, with the series of stationary chutes F, and an intermittently discharging measure D, of an intermittently moving spout c^2, arranged to receive the contents of the measure and deliver it seriatim into the chutes. 16th. In an automatic weighing machine, the combination, with a circular series of scales and a corresponding series of chutes above them, of an intermittently discharging measure, an intermittently revolving central shaft, a chute carried thereby receiving the material from said measure and conducting it to said series of chutes seriatim, and a series of carriers arranged beneath the scales to receive the weighed material therefrom, and mounted on said shaft. 17th. In an automatic weighing machine, the combination, with a scale and mechanism for dumping charges of material to be weighed therein, of a movable finger arranged to hold the scale while the charge is being dumped therein, and then to release it. 18th. In an automatic weighing machine, the combination, with a scale and mechanism for dumping the same, a stop arranged to hold the scale beam depressed while the scale is dumped and to retract therefrom to permit the beam to rise gradually after dumping. 19th. In an automatic weighing machine, the combination, with a series of stationary scales and mechanism for simultaneously dumping charges of the material to be weighed therein, of a series of movable fingers, connected and moving together, arranged to hold the respective scales while the charges are being dumped therein, and movable to gradually release them. 20th. In an automatic weighing machine, the combination, with a series of stationary scales and mechanism for simultaneously dumping them, of a series of stops connected and moving together, arranged to hold the scale beams depressed while the scales are dumped, and movable slowly away therefrom to permit the beams to rise gradually after dumping. 21st. In an automatic weighing machine, the combination, with a series of scales I, of a ring G, having fingers G^5, arranged to engage the scales and prevent their falling, and stops G^{12}, arranged to engage the scales and prevent their rising, and mechanism for alternately raising and depressing said ring so as to bring said fingers and stops into operation alternately and intermittently. 22nd. In an automatic weighing machine, the combination with a series of scales and a series of chutes above them having gates, of mechanism for operating said gates, consisting of arms engaging the respective gates and connected together, and driving mechanism for moving said arms simultaneously to open the gates and dump the charges in said chutes into the scale pans. 23rd. In an automatic weighing machine, the combination, with a series of scales and a series of chutes above them having gates, of mechanism for operating said gates, consisting of a ring G, having arms G^3, arranged to engage lever arms F^3, attached to said gates, and mechanism for raising and lowering said ring. 24th. The combination of the chutes F, the gates F^2, in said chutes having lever arm F^3, the series of scales situated below said chutes, a ring G, having fingers G^3, arranged to engage and lift levers F^3, and fingers G^5, arranged to engage and hold the scales, said fingers G^3 and G^5, being arranged to act simultaneously, and mechanism for raising and lowering the ring intermittently. 25th. The combination of the chutes F, the gates F^2, in said chutes having lever arms F^3, the series of scales situated below said chutes, a ring G, having fingers G^3, arranged to engage and lift levers F^3, and fingers G^5, arranged to engage and hold the scales, said fingers G^3 and G^5, being arranged to act simultaneously, stops G^{12}, also secured to ring G, arranged to engage the scales and prevent their rising during dumping, and mechanism for raising and lowering the ring intermittently. 26th. In a scale, a scale pan consisting of an inclined bottom hung from the scale beam, and a movable body adapted to be lifted from said bottom to dump the scale. 27th. In a scale, a scale pan consisting of an inclined bottom hung from the scale beam, and a movable body pivoted to the upper part of said inclined bottom, and adapted to be lifted from the lower part of said bottom to permit the contents of the pan to slide out. 28th. In a scale, a scale pan consisting of an inclined bottom hung from the scale beam, by hangers guided to confine the bottom to a vertical motion, and a movable body adapted to be lifted from said bottom to dump the scale. 29th. The combination, with the scale pans I, each consisting of an inclined bottom I^1, supported on the scale beam, and movable only in a substantially vertical line, and a movable body I^3, pivoted to the upper end of said inclined bottom, of a dumping ring J, arranged to lift the bodies I^3, and mechanism for intermittently raising and depressing said ring. 30th. The combination, with a series of scales of a series of receptacles adapted to receive the charges dumped from the scales, consisting each of an inclined bottom and a movable body adapted to be lifted off said bottom to dump the receptacle. 31st. The combination, with a series of scales of a series of receptacles adapted to receive the charges dumped from the scales, consisting each of an inclined bottom and a movable body pivoted to the upper part of the inclined bottom and adapted to be lifted at its opposite side from the lower part of said bottom to permit the contents of the receptacle to escape. 32nd. The combination with a series, of a series of receptacles adapted to receive the charges dumped from the scales, consisting each of an inclined bottom and a movable body, adapted to be lifted off said bottom to dump the receptacle, and means for dumping said receptacles consisting of an intermittently rising finger engaging the movable bodies thereof in succession and lifting each in turn. 33rd. The combination, with a series of stationary scales, of a series of intermittently rotating carriers, consisting each of an inclined bottom and a movable body adapted to be lifted off said bottom to dump the carrier, and means for dumping the carriers as they arrive at the dumping position, consisting of an intermittently rising finger engaging the carriers as they reach said position, and by its rising movement lifting the movable body of each carrier in turn. 34th. In an automatic weighing machine, a feeder for delivering a graduated feed to the scales, consisting of a cylindrical casing having openings communicating by chutes with the respective scales, a perforated cylinder revolving in said casing, and a stationary part mounted in said casing to cover the perforations during their coincidence with said openings. 35th. In an automatic weighing machine, a feeder for delivering a graduated feed to the scales, consisting of a cylindrical casing, having openings communicating by chutes with the respective scales, a perforated cylinder revolving in said casing, and a stationary brush mounted in said casing to cover the perforations in the perforated cylinder during their passage over said openings, and brush off all material except that carried in the perforations. 36th. In an outside weighing machine, the combination with an intermittently rotating shaft of mechanism for imparting to its intermittent movements consisting of a disc on said shaft, having as many slots as the number of its movements in a revolution, a rock lever, a bolt carried by said lever adapted to enter said slots, a locking bolt having a stationary mounting and adapted to engage and lock said disc, a driving shaft and interposed mechanism for swinging said lever and for engaging and disengaging said bolts, adapted to engage the bolt on said rock lever with the disc, and hold it engaged during the forward vibration of said lever, and to engage said locking bolt and hold it engaged during the return vibration of said lever, whereby the shaft is positively propelled, and positively locked in position during the intervals between the propulsive movements. 37th. In an automatic weighing machine, the combination of a shaft E, carrying a series of circularly arranged receptacles with mechanism for giving it an intermittent rotary motion consisting of a notched disc E^1, a rock lever E^2, pivoted on or concentric with the shaft, mechanism for intermittently moving the rock lever, as described, a bolt E^3, guided in lever E^2, a stationary guide E^9, a bolt E^{11}, having bearings in said guides, and intermittently acting mechanism connected with bolts E^3, and E^{11}, arranged to engage them alternately with notches in disc E^1, substantially as set forth. 38th. In a weighing mechanism, the combination, with a circular series of scales, means for supplying them, and a movable chute for each scale, through which the material is supplied thereto, connected to the scale beam to be deflected by the descent of the scale pan so as to deliver into the pan when the latter is under weight, and outside of the pan when it is full weight, of a box beneath the scales for receiving the material falling outside the pans, having a discharge opening and a revolving arm adapted to sweep the material accumulating in said box into said opening.

No. 43,800. Automatic Weighing Machine.

(*Bascule automatique.*)

Henry Eyster Smyser, Germantown, Philadelphia, U.S.A., 1st August, 1893; 6 years.

Claim.—1st. The combination, with a series of scales and a corresponding series of stationary receptacles arranged to receive charges of the material to be weighed and deliver them into the scale pans, of a movable slide beneath the receptacle having openings registering with the respective receptacles, and movable to bring said openings out of register therewith to close the receptacles, or to bring said openings into register therewith to discharge the receptacles. 2nd. The combination, with a series of scales and a corresponding series of receptacles arranged to receive successive charges of the material to be weighed and deliver them simultaneously into the scale pans, and a measuring device delivering the charges into said receptacles successively, of a movable slide, having openings registering with the respective receptacles and movable to bring said openings out of register therewith to close the receptacles and to bring them into register therewith to discharge the receptacles. 3rd. The combination, with a series of scales, and a corresponding series of stationary receptacles arranged to receive charges of the material to be weighed and deliver them into the scale pans, of a movable slide beneath the receptacles having openings registering with the respective receptacles, and movable to bring said openings out of register therewith to close the receptacles, or to bring said openings into register therewith to

discharge the receptacles, and a revolving cam for reciprocating said slide at intervals. 4th. The combination with a series of

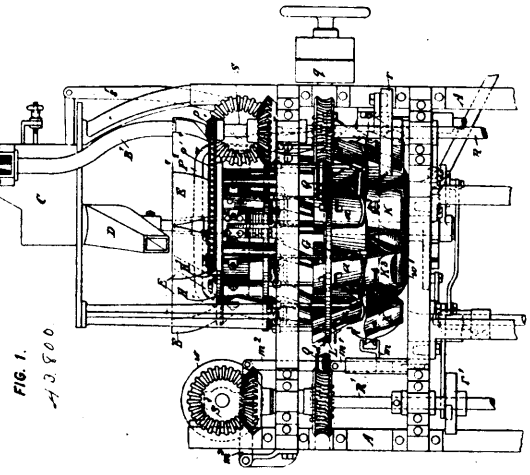
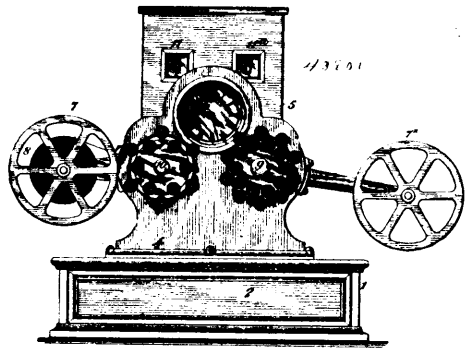


FIG. 1.

scales and a corresponding series of receptacles arranged to receive successive charges of the material to be weighed, and deliver them simultaneously into the scale pans, and a measuring device delivering the charges into said receptacles successively, of a movable slide, having openings registering with the respective receptacles and movable to bring said openings out of register therewith and to bring close the receptacles and to bring them into register therewith to discharge the receptacles, and driving mechanism for operating said measuring device and slide, constructed to operate the former as many times in succession as there are scales, and upon the termination of the series of operations, by which all said receptacles are charged, to operate said slide to simultaneously dump said receptacles, and immediately thereafter to restore said slide. 5th. The combination, with a circular series of scales and a corresponding series of circularly-arranged receptacles adapted to receive charges of the material to be weighed and a series of chutes leading downward from the respective receptacles, and adapted to discharge the material therefrom into the scale pans, of a movable slide, consisting of an annular plate, having openings registering when in one position, of the plate with the respective receptacles, arranged between said receptacles and their chutes, and movable to bring said openings out of register with the receptacles to close the latter, or to bring them into register therewith to simultaneously discharge the receptacles. 6th. The combination, with the series of scales, of a circularly-arranged series of receptacles E, E, an annular bottom plate H^1, therefor, having holes under the respective receptacles, and a movable slide H, consisting of an annular plate mounted to oscillate beneath said bottom plate, and having openings registering with the bottom openings of the respective receptacles, whereby its movement simultaneously opens or closes the bottom openings thereof. 7th. In an automatic weighing machine, the combination with a scale and mechanism for dumping a charge into its pan, of a fixed stop for limiting the descent of the pan, and a movable stop moving to engage the scale beam and hold it against said fixed stop, and remaining stationary to hold it there until the dumping of the charge into the pan, and subsequently retracting to release the beam and permit the scale to weigh the charge. 8th. In an automatic weighing machine, the combination with a scale, mechanism for dumping the weighed charge from its pan, and mechanism acting subsequently thereto for dumping a charge into its pan, of a fixed stop for limiting the descent of the pan, and a movable stop moving down before the dumping of the charge from the pan to hold the scale beam against said fixed stop, remaining stationary to hold it there during the dumping of the pan and until the dumping of the new charge into the pan commences, and moving subsequently slowly upward to gradually release the scale. 9th. In an automatic weighing machine, the combination of a series of scales, mechanism for dumping the weighed charges from the scale pans, and mechanism acting subsequently thereto for dumping charges of the material to be weighed simultaneously into the scale pans, of a series of fixed stops for limiting the descent of the pans, and a vertically-movable stop ring P, and driving mechanism for raising and lowering it, adapted to move it down before the dumping of the charge from the pan to force the scale beams down until held against said fixed stops, to hold it stationary there during the dumping of the pans, and during the dumping of the new charges into the pans, and to subsequently move it slowly upward to gradually release the several scales. 10th. In an automatic weighing machine, the combination with a series of scales, mechanism for dumping the scale pans, and mechanism for subsequently dumping the charges into the pans, of fixed stops for limiting the descent of the pans, and a vertically-movable stop ring P connected to a vertically-sliding hub P^1, and driving mechanism for said ring, consisting of a cam r, and the lever r^1 for transmitting motion from said cam to said hub. 11th. In an automatic weighing machine, comprising the combination of a series of scales, mechanism for dumping the scale pans simultaneously, a revolving series of carrier receptacles beneath the scales, arranged to receive the charges dumped from the scale pans, a delivery chute, and mechanism for dumping the carriers in succession as they reach said chute, the construction of the one of said carrier receptacles which stands over said chute at the instant of dumping the scales, with a permanent discharge opening w^1, whereby said carrier receptacle constitutes essentially a hopper or chute through which the charge dumped from the scale pan descends directly into the delivery chute independently of the operation of the dumping mechanism.

No. 43,801. Cash Register. (*Registre de monnaie.*)

Fig 1.



George Boemermann, Brooklyn, New York, U.S.A., 1st August, 1893; 6 years.

Claim.—1st. In a cash register, the combination with a pull and its spindle, capable of rotation and endwise movement, type wheels on the spindle of the pull for printing the amount received and the time of its receipt, on strip or piece of paper, means, operated by the pull, for feeding said paper under the type wheels, an inking ribbon, a clock mechanism between the clock and the type wheel or wheels which print the time, whereby the former rotates and sets the latter intermittently, an impression roller, and means intermediate between said impression roller and the pull whereby the drawing out of the latter effects the printing, substantially as set forth. 2nd. In a cash register, the combination with a pull and its spindle, the type wheels 50, 51 and 52, mounted on said spindle, the ratchet wheels fixed to said type wheels, as described, the triple pawl 53, having hooks of different lengths engaging the teeth of the respective ratchet wheels, the pawl arm 62, and its spring, the clock, and the cam wheel 55, mounted on an arbour of the clock and arranged to act on the arm 62, substantially as set forth. 3rd. In a cash register, the combination with a pull and its spindle, type wheels mounted on said spindle, an inking ribbon for printing from said wheels, a plate 69, arranged under the ribbon and type, a flanged pivotally-mounted track 34, to support and guide the impression roller the said impression roller, mechanism between the said roller and the pull whereby the roller is operated by the drawing out of the pull, and means for feeding paper into position to be printed upon, substantially as set forth. 4th. In a cash register, the combination with the pull and its spindle, of the carrier 17, the push pins 18, mounted therein and provided with heads having numerals marked thereon, the ratchet wheel 20, rotating with the carrier 17, and the pawl 21, pivotally mounted on the frame with its head adapted to engage the ratchet wheel, said pawl having a cam stud 22, on its tail arranged in the path of the push pins when the latter are pushed in, whereby the said pins serve to put the nose of the pawl into engagement with the ratchet teeth, substantially as set forth. 5th. In a cash register, the combination with the pull and its spindle, of the carrier 17, the push pins mounted therein and adapted to be pushed in and drawn out to a limited extent, and the latch 23, pivotally mounted on the frame with its bevelled head in the path of the protruding ends of the pins whereby they will wipe under and raise the latch when the pull is rotated forward, said latch head having a lateral bevel or incline 23*a*, in the path of the pins, whereby the pins are pushed outward when the pull is rotated backward, substantially as set forth. 6th. In a cash register, the combination with the pull and its spindle, of the carrier 17 splined thereon, the push pins 18 mounted in the carrier, and each having in it two recesses, the spring detent 19 mounted in the carrier and adapted to engage one of said recesses when the pin is pushed in and the other when it is pulled out, and means operated by the push pins for arresting the forward rotation of the pull, substantially as set forth. 7th. In a cash register, the combination with a pull and its spindle, feed rollers for feeding a strip of paper to a cutter, and mechanism intermediate between the pull and said rollers, whereby they are operated when the pull is pushed in, of a cutter to sever a piece from the strip, comprising a frame, a stationary blade and a movable blade 39 mounted in guides on the frame, and mechanism between the pull

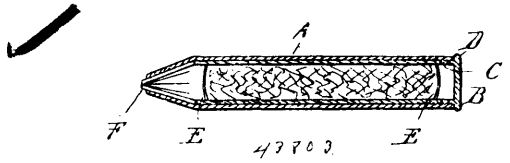
spindle and the blade 39 for operating the latter, said intermediate mechanism comprising the lever 26, connected with the pull spindle in a manner to be rocked by the latter in its movements, the elbow lever 41 coupled at one end to the cutter blade, the link 40 coupled at one end to the lever 41, and having a slotted connection at its other end to the lever 26, the spring hook 40^a pivoted to the link 40, and its hooked end adapted to engage the coupling stud 26^x on the lever when the latter is rocked forward, the cam 40^b carried by the hook 40^a, and a fixed support in the path of said cam when the lever is rocked backward, whereby the hook is freed from the stud 26^x, as set forth. 8th. In a cash register, the combination with the casing, the cash drawer mounted therein, a pull and its spindle, of the rock shaft 66, the loosely hung latch 27 engaging a locking recess in the drawer, means whereby the rocking of the shaft 66 in one direction lifts said latch, the upright rock shaft 28 operated by the pull, the radially projecting stud 28^b on said shaft 28, the arm 66^d on the shaft 66, provided with an inclined cam 66^c in the path of the stud 28^b, and springs which hold the arm 66^d in an intermediate normal position, substantially as set forth. 9th. In a cash register, the combination with a master pull, a type wheel 45 mounted rotatively on the spindle thereof, a dollar pull, means for communicating the rotary movement of the latter pull to the type wheel 45, mechanism for feeding a strip of paper under said type wheel and for producing the impression, said mechanism being actuated by the master pull, an adding mechanism 38^x for the dollars, and a mutilated gear wheel 37^x fixed on the spindle of the dollar pull, and adapted to be put in gearing position with said adding mechanism when the dollar pull is drawn out, whereby only a portion of the backward rotation of the dollar pull is communicated to the adding mechanism, for the purpose set forth. 10th. In a cash register, the combination with a pull and its spindle, type wheels mounted on the spindle of the pull, mechanism operated by the pull for feeding a strip of paper under the type wheels, an impression roller, 31, operated by the pull, and a track for said roller, of means substantially as described for holding up the strip of paper until the impression roller takes under it, and means operated by the pull, for severing the printed ticket from the strip, substantially as set forth. 11th. In a cash register, the combination, with the pull 10, and its spindle, adapted to be rotated and moved endwise, of the display wheel 13^x, the intermediate gearing whereby the rotation of the pull is communicated to said display wheel, the bevelled spring latch 48^a, mounted on the frame adjacent to the pull spindle, and the stop cam 48, on the said spindle, adapted to impinge on the latch and arrest the backward rotation of the pull, when the latter is drawn out, substantially as set forth. 12th. In a cash register, the combination, with the master pull and its spindle, the latter having in it a circumferential recess 9^b, and the pull 10, and its spindle, the latter having in it a recess 10^b, of the transversely-arranged lever 60, having at one end a toe 60^a, which engages the recess 10^b, when the pull 10 is drawn out, and at its other end a toe 60^b, which engages the recess 9^b, when the master pull is drawn out, and a spring which tends to put the toes of the lever into engagement with said recesses, substantially as set forth. 13th. In a cash register, the combination, with the master pull and its spindle, the latter having in it a circumferential recess 59^c, the pull 10, and its spindle, the wheel 37^x, on the latter spindle, having in its boss or hub a longitudinal channel in 37^d, a transversely arranged pawl lever 59, the nose 59^a of which is held normally in engagement with said channel by a spring 59^x, and the said spring, the nose 59^b, on the opposite end of the lever pawl registering with a circumferential recess 59^c, in the spindle of the master pull, substantially as set forth. 14th. In a cash register. the combinationn, with the casing, the cash drawer mounted therein, the pull, a lever coupled to the pull and adapted to be vibrated by the movements of the latter, and a bolt 63^a, coupled to and operated by said lever, of a movable socket piece operated by the drawer and adapted to receive said bolt when the drawer is pushed in, and means for moving said socket piece until the socket is out of register with said bolt when the pull and drawer are out, whereby the operator is prevented from pushing in the pull until the drawer is pushed in, as seth forth. 15th. The combination with a numeral-bearing wheel, of a rotatively mounted pull, intermediate gearing connecting said pull and wheel, and means for limiting the rotation of said pull in setting the wheel, said means comprising a carrier on the pull spindle, a series of push pins mounted in said carrier, and a stop device arranged in the path of the pins when pressed in by the operator, the said pins corresponding with the respective numerals, on the wheel, substantially as and for the purposes set forth. 16th. In a cash register, the combination with a master pull, having a type wheel splined on its spindle and a type wheel rotatively mounted on its spindle, the latter being provided with a toothed gear wheel, of another pull having a toothed gear wheel splined on its spindle, a rack bar which connects and gears with said gear wheels, and means operated by the master pull for printing from said type wheels, as set forth.

No. 43,802. Method of Separating Gold from its Chloride Solutions. (*Méthode de séparer l'or des solutions de chlorure.*)

Joseph William Sutton, Brisbane, Colony of Queensland, 1st August, 1893 ; 6 years.

Claim.—1st. In the precipitation of gold from its chloride solution by sulphate of iron or other reagent the use of a hydro-carbon fluid as a collector of the gold, substantially as hereinbefore described and explained. 2nd. In the precipitation of gold from its chloride solution by sulphate of iron or other reagent, the use of a hydro-carbon fluid mixed with an alkali as a collector of the gold, substantially as hereinbefore described and explained. 3rd. Separating gold from its chloride solution by means of a volatile oil or resin, or a mixture thereof, substantially as hereinbefore described and shown. 4th. Separating gold from its chloride solution by means of a volatile oil or resin, or a mixture thereof, rendered alkaline by the addition of borax, or other alkali or alkaline salt, substantially as hereinbefore described and explained.

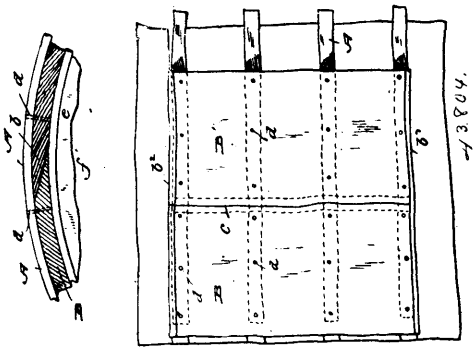
No. 43,803. Inhaler. (*Aspirateur.*)



Henry D. Cushman, Three Rivers, Michigan, U.S.A., 1st August, 1893 ; 6 years.

Claim.—In an inhaler, the combination, with a screw threaded casing open at both ends, of a sleeve, also open at both ends and screw threaded and adapted to be rotated to simultaneously unstop the openings in the casing and to close them, substantially as set forth.

No. 43,804. Barrel and Method of Making Same. (*Baril et méthode de fabrication.*)



James C. Dozier, Louisville, Kentucky, U.S.A., 2nd August, 1893 ; 6 years.

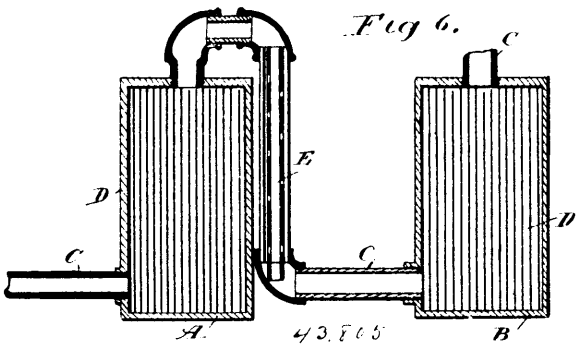
Claim.—1st. The barrel herein shown and described, having the series of staves B, each provided on its outer face only with the oppositely extending bevels b, b^1, arranged longitudinally along its respective side edges, said staves being forced or held together by external hoops or bands and each stave having one of its bevels b, overlapped by the inner face of the adjacent stave, whereby each stave has the side b^1, thereof fitted on the bevelled face b, of the adjacent stave, while its other bevelled face b^1, is overlapped by another adjacent stave, as set forth. 2nd. In a barrel, having the lapped staves and the expansible pliable corrugated lining H, fitted snugly within the barrel and adapted to be uniformly expanded or pressed outward against said staves of the barrel by the pressure of the contents packed within said barrel, substantially as described. 3rd. The method of making a barrel, which consists in arranging the hoop strips in parallel positions, forming each stave with the longitudinal bevels b, b^1, on their outer faces and at the side edges thereof, laying the staves on their flat faces upon the hoop strips and spacing said staves apart to leave the openings or spaces c, between the contiguous bevelled edges thereof, fastening the staves and hoop strips together, bending the connected hoops and staves around a cylindrical former and subjecting them to pressure to contract the body and thereby cause the bevelled edges of the staves to overlap one another and close the spaces c, and then fastening the hoops in place, substantially as set forth.

No. 43,805. Petroleum Fluid Burner. (*Brûleur de pétrole.*)

Henry Bragg and William Backus, both of Cleveland, Ohio, U.S.A., 2nd August, 1893 ; 6 years.

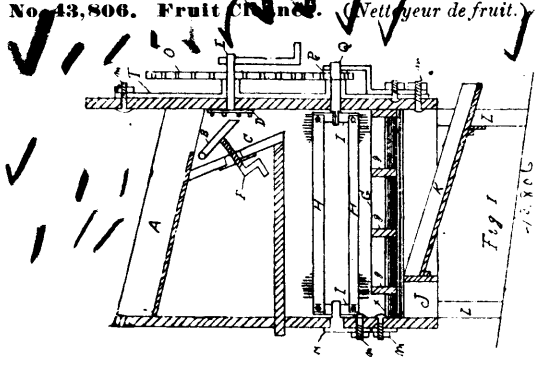
Claim.—1st. In a petroleum fluid burner, the combination of a main inlet pipe, closed generating chambers upon said pipe, a receiving chamber supporting burners and heating rods within the pipe and chambers, substantially as set forth. 2nd. In a petroleum fluid burner, the combination, with the supply pipe thereof, of perforated steel heating tubes within the pipe, substantially as

described. 3rd. In a petroleum fluid burner, the combination of generating chambers provided with steel rods filling their en-



closures, a final chamber supporting burners, a continuous pipe connecting the chambers, provided with perforated steel tubes and an indicator upon the inlet pipe, substantially as described. 4th. In a petroleum fluid burner, the combination of generating chambers A and B, burners adjacent closely thereto, provided with commingling hoods and deflectors, an inlet pipe connecting the said chambers, and steel rods or tubes in said chambers and pipes, substantially as set forth.

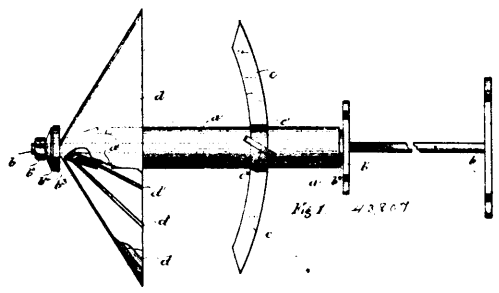
No. 43,806. Fruit Cleaner. (*Nettoyeur de fruit.*)



Thomas H. Bell, Brampton, Ontario, Canada, 2nd August, 1893; 6 years.

Claim.—1st. The combination of the feed plate B and the screw F, substantially as and for the purpose specified. 2nd. The combination of the feed plate B, the screw F, and the breaker D, substantially as and for the purpose specified. 3rd. A screen of semicircular form open at one of its sides, substantially as and for the purpose specified. 4th. The combination of the movable lid V, and the screen substantially as and for the purpose specified. 5th. The elongated slots in the castings T and U, substantially as and for the purpose specified. 6th. The combination of buttons W W, and the slides X, substantially as and for the purpose specified.

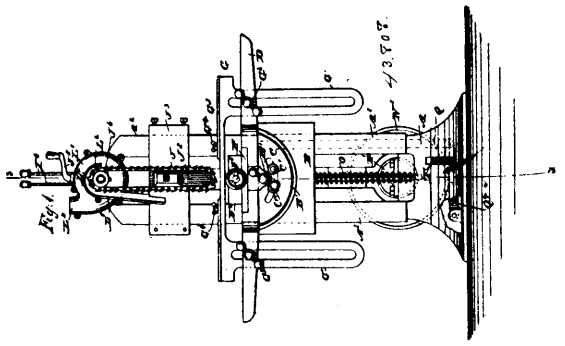
No. 43,807. Apparatus for Stopping Leaks in Ships and Boats. (*Appareil pour arrêter les voies d'eau dans les navires et bateaux.*)



Neil McEachran S. Douglas, Rangoon, Burmah, British India, 2nd August, 1893; 6 years.

Claim.—1st. In a leak stopper for ships and boats, the folding waterproof ribbed covers *d*, *m*, with or without a marginal cushion or flange *j*, j^1, as herein described and set forth. 2nd. In a leak stopper for ships and boats, the combination of the folding ribbed covers *d*, *m*, with the rod *b*, conical cap *c*, conical nut b^4, india-rubber disc b^3, casing *a*, lever nut b^1, adjustable cross bars *e*, *l*, and pawl *g*, as herein described and set forth. 3rd. In a leak stopper for ships and boats the folding covers *d*, *m*, in combination, with the eyed bolt b^5, hook b^7, metal tube *k*, with or without the rod *b*, and wire compressors *f*, as herein described and set forth.

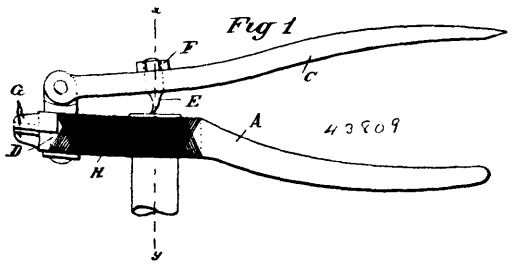
No. 43,808. Chain Tool Mortising Machine.
(*Outil-chaîne à mortaiser.*)



Christian Loetscher, Dubuque, Iowa, U.S.A., 2nd August, 1893; 6 years.

Claim.—1st. The combination with the work table, adapted to reciprocate vertically, of a clamping plate sliding transversely on said table, an arm pivoted to the table, and blocks having inclines and arranged in the path of the said arm and made adjustable, substantially as shown and described for the purpose specified. 2nd. The combination with a bed plate frame, of a tilting frame mounted to turn on the said bed plate frame, a bed plate held laterally adjustable on the said tilting frame, and a clamping plate fitted to slide on the said bed plate and provided with a rod, the axis of which forms the centre for the said tilting frame, substantially as shown and described. 3rd. The combination with a bed plate frame, of a tilting frame mounted to turn on the said bed plate frame, a bed plate held laterally adjustable on the said tilting frame, a clamping plate fitted to slide on the said bed plate and provided with a rod, the axis of which forms the centre for the said tilting frame, a spring for holding the said clamping plate in a normal position, substantially as shown and described. 4th. The combination with a bed plate frame, of a tilting frame mounted to turn on the said bed plate frame held laterally adjustable on the said tilting frame, a clamping frame fitted to slide on the said bed plate and provided with a rod, the axis of which forms the centre for the said tilting frame, an arm pivoted on the said bed plate frame and engaging the said rod, the said arm being adapted to receive a swinging motion on the upward movement of the said bed plate frame, so as to shift the said clamping plate, substantially as shown and described. 5th. The combination with a bed plate frame, of a tilting frame mounted to turn on the said bed plate frame, a bed plate held laterally adjustable on the said tilting frame, a clamping plate fitted to slide on the said bed plate and provided with a rod, the axis of which forms the centre for the said tilting frame, an arm pivoted on the said bed plate frame and engaging the said rod, the said arm being adapted to receive a swinging motion on the upward movement of the said bed plate frame, so as to shift the said clamping plate, and blocks having inclines and adapted to be engaged by the free end of the said pivoted arm, substantially as shown and described. 6th. The combination, with a bed plate frame, mounted to slide vertically, of a feed screw shaft engaging the said bed plate frame, a main driving shaft for imparting a rotary motion to the said feed screw shaft in either direction, and a shifting device, substantially as described, controlled from the said bed plate frame, for imparting forward and backward motion to the said feed screw shaft, substantially as shown and described. 7th. The combination with the chain tool and the shaft carrying the sprocket wheel, over which passes the said tool, of a rotary fan mounted upon and driven by said shaft, and provided with a hood whose central inlet is behind and in close proximity to the said sprocket wheel and chain, substantially as shown and described. 8th. The combination, with the chain tool, and the shaft carrying the sprocket wheel, over which passes the said tool, of a suction fan from the said shaft, and having its inlet in close proximity to the said sprocket wheel and chain tool, and a hood held on the front of the casing of the said suction fan and extending down alongside of and curved over the top part of the said chain tool over the said sprocket wheel, substantially as shown and described. 9th. In a chain tool mortising machine, a tension bar, having shoulders or ribs J^8, and in its free end concentric grooves K^3, in combination with a wheel, having corresponding concentric tongues K^4, on both sides of said wheel, which mesh into the said grooves in the casings of the said bar, substantially as described.

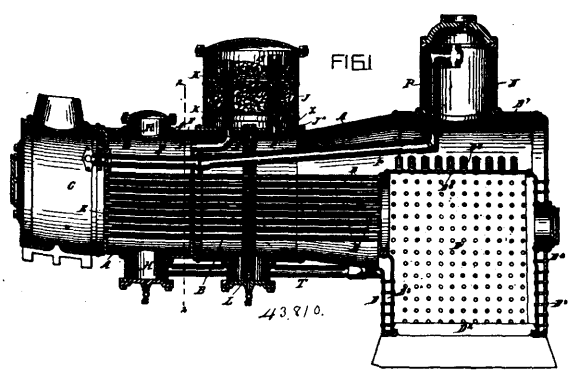
No. 43,809. Tool for Exchanging Percussive Caps in Empty Cartridge Cases. (*Outil pour changer les capsules à percussion dans les étuis de cartouches vides.*)



Nils Gustaf Hanson, Stockholm, Sweden, 2nd August, 1893; 6 years.

Claim.—1st. In a tool for exchanging percussion caps in empty cartridge cases where the cartridge is secured in one pair of legs of a three legged set and a pin in the other leg is caused to penetrate into the percussion cap, the arrangement for the cartridge carrying portion of two pivotally connected legs such as A which on their opposing faces are provided with recesses such as B whereby the same tool may be used for cartridges of different calibres by the cartridges being gripped between the legs A, substantially as described and illustrated in the accompanying drawings. 2nd. In a tool such as described, the combination with the holding legs A, of a revoluble pivot such as D, to which is jointed a leg such as C, provided with a pin or claw E, the whole so arranged that the leg C may, owing to the pivot D, be turned round and a spent percussion cap may be extracted by means of the claw at the one side of the leg or a percussion cap may be pressed into the cartridge by means of the other side of the leg, substantially as described and illustrated in the accompanying drawings.

No. 43,810. Boiler. (*Chaudière.*)

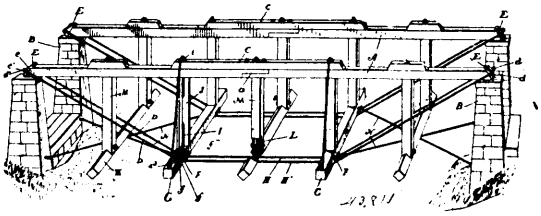


John R. Brownell, Dayton, Ohio, U.S.A., 2nd August, 1893; 6 years.

Claim.—1st. In a steam boiler the combination of the compartment G, receiving heat from the adjacent portions of the boiler, and the filtering compartment J, conduit L for conveying liquid from compartment G to compartment J, and conduit for conveying the filtered water from compartment J on its way to the boiler, substantially as and for the purposes specified. 2nd. The compartment G occupying a portion of the barrel or main portion of the boiler, and the compartment J having filtering material, and located at the top portion of the boiler and connected with compartment G by conduit I, whereby the water from the latter compartment is delivered to the compartment J, the latter compartment being connected with the boiler by an opening or conduit for enabling the water in the compartment J to be delivered into the boiler, substantially as and for the purposes specified. 3rd. The compartment G occupying a portion of the barrel or main portion of the boiler, and the compartment J having filtering material, and located at the top portion of the boiler and connected with compartment G by conduit I, whereby the water from the latter compartment is delivered to the compartment J, the latter compartment being connected with the boiler by an opening or conduit for enabling the water in the compartment J to be delivered into the boiler, and steam conduit D', whereby steam is conveyed from the boiler to compartment J for the purpose of raising the temperature of the water in the filtering compartment, previous to entering the boiler, substantially as and for the purposes specified. 4th. In a boiler, the filtering compartment J, having shelf or shelves, as K, holding filtering material, and having the inlet water pipe T, extending up through the filtering material and ending in the compartment J, at or above said filtering material, and a chamber X, located in the lower portion of said compartment and located upon and in contact with the boiler and conduit pipe L, whose inlet orifice is above the bottom of the boiler and which pipe extends down directly through the bottom of said chamber X, and into the boiler, substantially as and for the purposes specified. 5th. In a boiler, the filtering compartment J, having shelf or shelves K, holding filtering material and having the inlet water pipe T, extending up through the filtering material and ending in the compartment J, at or above said filtering material, and a chamber X, located in the lower portion of said compartment and located upon and in contact with the boiler and conduit pipe L, whose inlet orifice is above the bottom of the chamber, and which pipe extends down directly through bottom of said chamber X, and into the boiler, and the inlet pipe for supplying water to the said filtering compartment, passing through the boiler and up through the chamber X, and through the filtering material to the upper portion of compartment J, substantially as and for the purposes specified. 6th. In a boiler, the filtering compartment J, having shelf or shelves as K, holding filtering material, and having the inlet water pipe I, extending up through the filtering material and ending in the compartment J, at or above said filtering material, and a chamber X in said compartment J, and conduit L, connected to the chamber X and to the boiler and chamber G located in the boiler, the pipe I receiving its water from said chamber G, substantially as and for the purposes specified. 7th. In a boiler, the filtering compartment J, having shelf or shelves K, holding filtering material, and having the inlet water pipe T, extending up through the filtering material and ending in the compartment J, at or above said filtering material, and a chamber X, located in the lower portion of said compartment and located upon and in contact with the boiler and conduit pipe L, whose inlet orifice is above the bottom of the chamber, and which pipe extends down directly through the bottom of said chamber X, and into the boiler, and extending down through the boiler to the lower portion thereof, substantially as and for the purposes specified. 8th. In a boiler, the filtering compartment J, having shelf or shelves as K, holding filtering material, and having the inlet water pipe I, extending up through the filtering material and ending in the compartment J, at or above said filtering material, and a chamber X in said compartment J, and conduit L, connected to the chamber X and to the boiler, and extending down to the lower portion or bottom of the boiler, and chamber G located in the boiler, the pipe I receiving its water from the said chamber, substantially as and for the purposes specified. 9th. The compartment G, located in the boiler, and the filtering compartment J, having filtering means, substantially as described, and connected to the upper portion of the compartment G, by means of the conduit I, having its outlet in the upper portion of compartment J, and outlet pipe I, connecting the lower portion of the said compartment J, with the lower portion of the boiler, substantially as and for the purposes specified. 10th. The compartment G, extending from the bottom to the top of the boiler and receiving water at or near the bottom of the said boiler, and delivering it near the top thereof, and conduit I, and filtering chamber J, to which the conduit I, delivers the water from compartment G, and conduit L, taking the water from the compartment J, and delivering it in the boiler near the bottom of the latter, substantially as and for the purposes specified. 11th. The compartment G, extending from the bottom to the top of the boiler, and receiving water at or near the bottom of the said boiler, and delivering it near the top thereof, and conduit I, located within the boiler, and filtering chamber J, to which the conduit I delivers the water from compartment G, and conduit L, taking the water from the compartment J, and delivering it in the boiler near the bottom of the latter, substantially as and for the purposes specified. 12th. The compartment G, occupying a transverse section of the boiler, and receiving water at or near the bottom of said boiler, and delivering it near the top thereof, and conduit I, and filtering chamber J, to which the conduit I delivers the water from compartment G, and conduit L, taking the water from the compartment J, and delivering it in the boiler, substantially as and for the purposes specified. 13th. The compartment G, occupying a transverse section of the boiler and receiving water at or near the bottom of the said boiler and delivering it near the top thereof, and conduit I, and filtering chamber J, to which the conduit I delivers the water from compartment G, and conduit L, taking the water from compartment J, and delivering it in the boiler near the bottom of the latter, substantially as and for the purposes specified. 14th. The compartment G, occupying a transverse section of the boiler, and having the mud drum H, provided with pipe T, through which water enters said compartment, and filtering chamber J, located at the upper portion of the boiler, and the conduit I, connecting the compartment G to the compartment J, and the pipe L, delivering the filtered water from the filtering chamber to the boiler, substantially as and for the purposes specified. 15th. The compartment G, occupying a transverse section of the boiler, and having the mud drum H, provided with pipe T, through which water enters said compartment, and filtering chamber J, located at the upper portion of the boiler, and the conduit I, located within the boiler, connecting the compartment G to the compartment J, and the pipe L, delivering the filtered water from the filtering chamber to the boiler, substantially as and for the purposes specified. 16th. The compartment G, occupying a transverse section of the boiler,

and having the mud drum H, provided with pipe T, through which water enters said compartment, and filtering chamber J, located at the upper portion of the boiler, and the conduit I, connecting the compartment G, to the compartment J, and the pipe L, extending to or near the bottom of the boiler, and delivering the filtered water from the filtering chamber to the boiler, substantially as and for the purposes specified. 17th. The compartment G, occupying a transverse section of the boiler, and having the mud drum H, provided with pipe T, through which water enters said compartment, and filtering chamber J, located at the upper portion of the boiler, and the conduit I, connecting the compartment G to the compartment J, and the pipe L, and mud drum M, the pipe L extending to said mud drum and there delivering the water from the filtering chamber, substantially as and for the purpose specified. 18th. The combination of the compartment G, occupying a transverse section of the boiler next to the smoke box, and having inlet T, located in the vicinity of the bottom of the said boiler, and filtering chamber located to the rear of said compartment, and at the top portion of the boiler, and provided with filtering material, conduit L located in the upper portion of the boiler, and connecting the upper part of said compartment with the upper part of the said filtering chamber and the steam pipe S, connecting the steam space of the boiler with the upper portion of the filtering chamber, and chamber X, below the filtering material and above the floor of compartment J, and delivery conduit L, located in the boiler, and extending from said chamber X to the lower portion of the boiler, the fire flues passing through the latter and through compartment G, substantially as and for the purposes specified. 19th. The combination of the compartment G, occupying a transverse section of the boiler next to the smoke box, and having inlet T, located in the mud drum in the bottom of the said boiler, and filtering chamber located to the rear of said compartment and at the top portion of the boiler, and provided with filtering material, conduit L, located in the upper portion of the boiler, and connecting the upper part of said compartment with the upper part of the said filtering chamber, and the steam pipe S, connecting the steam space of the boiler with the upper portion of the filtering chamber X, below the filtering material and above the floor of compartment J, and delivery conduit L, located in the boiler and extending from said chamber X, into the mud drum M, at the bottom of the boiler, the fire flues passing through the latter and through compartment G, substantially as and for the purposes specified. 20th. The combination of the compartment G, occupying a transverse section of the boiler next to the smoke box, and having inlet T, located in the mud drum in the bottom of the said boiler, and filtering chamber located to the rear of said compartment, and at the top portion of the boiler, and provided with filtering material, conduit L, located in the upper portion of the boiler, and connecting the upper part of said compartment with the upper part of the said filtering chamber, and the steam pipe S, connecting the steam space of the boiler with the upper portion of the filtering chamber X, below the filtering material and above the floor of compartment J, and delivery conduit L, located in the boiler and extending from said chamber X, into the mud drum M, at the bottom of the boiler, the fire flues passing through the latter and through compartment G, and man hole R, for reaching compartment G, substantially as and for the purposes specified.

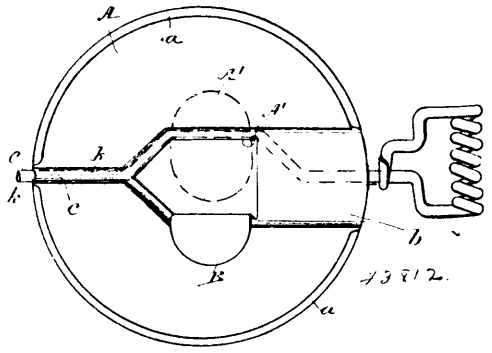
No. 43,811. Road Bridge. (*Pont de route.*)



John James Price and Royal Grafton, both of Toronto, Ontario, Canada, 2nd August, 1893; 6 years.

Claim.—1st. The combination with the longitudinal timbers or stringers A, having their ends supported upon the piers B, of the truss rods D, D¹, hollow posts J, and needle beams G arranged to support the roadway, as and for the purpose specified. 2nd. The combination with the longitudinal timbers or stringers A, having their ends supported upon the piers B, of the truss rods D and D¹, and H and H¹, and the needle beams G, hollow posts J, and binding rods, I, arranged as and for the purpose specified. 3rd. The combination with the longitudinal timbers or stringers A, having their ends supported upon the piers B, and spliced at *a*, and bound together by the beams C, of the truss rods D and D¹, and H and H¹, and the needle beams G, hollow posts J, and binding rods I, arranged as and for the purpose specified. 4th. The combination with the longitudinal timbers or stringers A, having their ends supported upon the piers B, and provided with end cap plates E, having lateral recesses *e*, and cross bars *e*¹ fitting in the recess, the needle beams G provided with straddle plates F, having lateral recesses *f*, and cross bars fitting into the recesses, of the truss rods D, D¹, and H, H¹, connected to the cross bars *e*¹ and *f*¹ in the recesses, the hollow posts J extending between the needle beams and the longitudinal timbers and the binding rods I, arranged as and for the purpose specified. 5th. The combination with the longitudinal timbers or stringers A, having their ends supported upon the piers B, of the truss rods D and D¹, and H and H¹, the needle beams G, hollow posts J, binding rods I, and the cross braces N, connected to the needle beams and the ends of the bridge, as and for the purpose specified. 6th. The combination with the longitudinal timbers or stringers A, having their ends supported upon the piers B, of the truss rods D and D¹, and H and H¹, the needle beams G, hollow posts J, binding rods I, and the intermediate needle beams K, having their corner edges placed upwardly and suspended from the longitudinal timbers by the rods L, and having the hollow posts M extending between the needle beams and the longitudinal timbers, as and for the purpose specified.

No. 43,812. Damper. (*Registre.*)

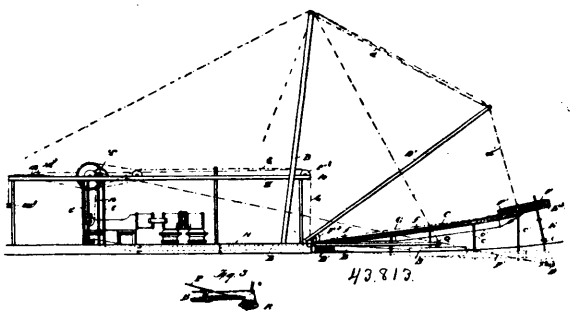


Thomas Davidson, Montreal, Quebec, Canada, 3rd August, 1893; 6 years.

Claim.—1st. A damper, having an irregular channel diametrically through its body to receive and guide an irregularly shaped spindle, in combination with such a spindle, for the purposes set forth. 2nd. A damper, having an irregular channel diametrically through its body to receive and guide an irregularly shaped spindle, and said body formed with a free locking portion adapted to hold said spindle in place, in combination with such a spindle. 3rd. A damper, formed of two parts or discs, cut away centrally to provide one or more free projecting tongues or flap portions and depressed outwardly to form an internal guiding channel and seat for the spindle, and in combination with such spindle. 4th. In a damper, the combination of two body parts having central locking pieces or flaps integral therewith and depressed to form a guiding channel or groove inclined in part, and a bent spindle, for the purposes set forth 5th. In a damper, the combination of the discs A, B, cut away to provide flaps A¹, B¹, and depressed to form an irregular guiding channel or seat between them, as shown, and the bent or irregularly shaped spindle *k*, held in place in said seat by one of said flaps, as set forth.

No. 43,813. Hydraulic Dredge.

(*Dragueur hydraulique.*)

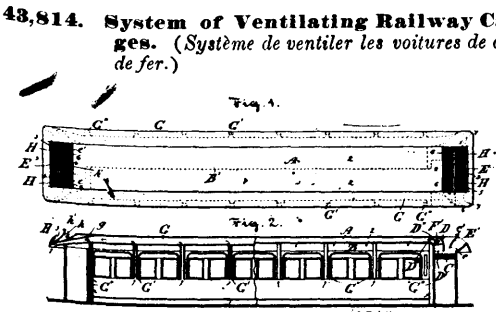


Caleb H. Booth, Dubuque, Iowa, U.S.A., 3rd August, 1893; 6 years.

Claim.—1st. In a hydraulic dredge, the combination, with the barge and supporting jib and a suction pipe, of a curved bell-mouth for the pipe, arranged to have a slight axial movement, a stirrer at the mouth, means for actuating the stirrer, and moving means connected with the sides of the bell-mouth extending out laterally therefrom, substantially as described. 2nd. In a hydraulic dredge, the combination, with the suction pipe, having a bell-mouth arranged to have a slight rotary axial movement and a stirrer at the end thereof, of ropes or the equivalent attached to the sides of the mouth and extending in opposite directions substantially on a hori-

zontal plane obliquely to the suction pipe, and means for moving the ropes, substantially as described. 3rd. In a hydraulic dredge, the combination, with the barge, of a suction pipe, a curved bell-mouth arranged to have a slight rotary movement, a stirrer, means for actuating the stirrer, booms hinged to the barge and extending horizontally and at an incline therefrom, ropes passing over the outer ends of the booms and attached to the sides of the bell-mouth, and means for winding the ropes up, substantially as described. 4th. In a hydraulic dredge, the combination, with the suction pipe, having a curved bell-mouth thereon arranged to have a slight rotary movement, of a stirrer at the mouth thereof and drawing means on the sides of the mouth of the suction pipe extending out substantially on a horizontal plane to create a side draw when the suction pipe is to be moved, substantially as described. 5th. In a hydraulic dredge, the combination with a barge, a supporting jib, and a suction pipe having a flexible section, of means for raising and lowering the pipe, a bell-mouth arranged at an angle to the pipe and allowed a slight rotary axial movement, a stirrer at the mouth, booms extending out horizontally from the corners of the barge, winding drums on the barge, and ropes on the drums extending out to the ends of the horizontal booms and back to the mouth of the suction pipe to which they are attached, substantially as described. 6th. In a hydraulic dredge, the combination with a barge, a supporting jib, and a suction pipe, of a stirrer for the suction pipe, a grooved wheel on the supporting jib, a shaft for said wheel connected with the stirrer, an endless cable wound on the wheel, two wheels arranged at the inner end of the supporting jib, a superstructure on the barge, wheels on the structure having their peripheries arranged directly over the wheels on the inner end of the supporting jib, and means for driving the cable, substantially as described. 7th. In a hydraulic dredge, the combination with the barge, a supporting jib and suction pipe, of a stirrer on the pipe, an endless cable for actuating the stirrer, a grooved wheel over which the cable passes located at the end of the jib, a grooved wheel on the barge over which the opposite end of the cable passes, means for taking up the slack in the cable, a friction disc having connection with a suitable motive power and means engaging the disc and connected with the shaft of the wheel on the barge, substantially as described. 8th. In a hydraulic dredge, the combination with a barge, a supporting jib and a suction pipe, of a curved bell-mouth on the pipe, arranged to have a slight axial movement, a stirrer at the mouth of the pipe, means for actuating the stirrer, ropes secured to the sides of the mouth of the suction pipe, pulley blocks arranged beyond the barge on a plane substantially horizontal with the deck thereof and over which the ropes pass, winding drums on the barge with which the inner ends of the ropes are connected, and friction wheels connected with the shafts of the drums and actuated by the stirrer-actuating means, substantially as described. 9th. In a hydraulic dredge, the combination with the suction pipe, of a curved bell-mouth on the pipe, arranged to have a slight axial rotary movement, a stirrer at the mouth, means connected with the sides of the mouth for drawing the same horizontally in the arc of a circle, drums to which said drawing means are attached, shafts on said drums, friction wheels on the ends of said shafts, gearing for actuating the stirrer, friction wheels actuated by said gearing, and means for forcing said friction wheels into engagement, substantially as described. 10th. In a hydraulic dredge, the combination with the suction pipe, a stirrer at the end thereof, means for actuating the stirrer, and ropes connected with the mouth of the suction pipe, of drums for winding said rope and means for actuating the drums, consisting of flexible shafts, friction discs on the shafts, friction wheels normally out of contact with said discs, means for actuating said friction wheels, and levers for forcing the friction discs into contact with the friction wheels, substantially as described.

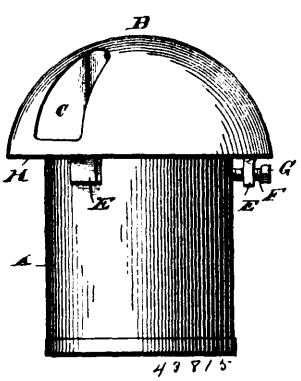
No. 43,814. System of Ventilating Railway Carriages. (*Système de ventiler les voitures de chemins de fer.*)



Samuel Hughes, Lindsay, Ontario, Canada, 3rd August, 1893; 6 years.

Claim.—1st. In a ventilating system for railway cars, the combination, with the car roof of a false ceiling B and B^{11}, forming air ducts with the roof and suitable partitions, substantially as set forth. 2nd. In a ventilating system for railway cars, the combination, with the car roof of a false ceiling B and partition B^1, forming two ducts 2 each closed at one end, a tank C at each end of the car, a connecting pipe or uptake D at the rear of each tank connecting said tank with one end of a duct 2, substantially as set forth. 3rd. In a ventilating system for railway cars, the combination, with the car roof of a false ceiling B and partition B^1, forming two ducts 2 closed at one end and having at its lower surface a series of openings, a connecting pipe or uptake D at the other end of each duct, heating pipes D^{11} in said uptake, a wire screen D^1 at the bottom of said uptake, a tank C at each end of the car communicating with one of the ducts by said uptake, and a blast funnel or injector E on each tank, substantially as set forth. 4th. In an overhead tank for a ventilating system for railway cars, a bottom *c* sloping to one side, an overflow pipe and draw-off pipe with cock at the lowest point of the bottom, a part of one end of the tank extending upwards to form part of an inlet, and the junction with the bottom made with a large curve and provided with a lip c^{111}, a wire screen E^{11} hung at the opposite side of the inlet, an ice box F, an uptake D at the rear with wire screen at the mouth, and lip dipping in the water at the front and inlet for air, substantially as set forth. 5th. In a ventilating system for railway cars, the combination, with the raised portion of the roof, of a series of three openings occupying the width of the raised portion of the roof near each end and each divided transversely by a partition and raised and curved rims to form mouths 3 and 4 in the centre and 5 and 6 at each side of said centre, the mouths nearest the end situated in the curved end of the roof so as to present an inclined face and said openings covered with wire gauze, said openings continued by downwardly projecting throats, and through which said transverse partition partly extends, the throats of the central openings connecting with a tank, and the side throats forming nozzles in the ends of ducts, substantially as set forth. 6th. In a ventilating system for railway cars, the combination of ducts G formed on each side of the car roof, and extending to each end of the same, branch pipes G^1 and G^{11}, connecting with said ducts and extending down the side of the car and having one or more openings, and an ejector at each end of each duct having its mouth flush with the top of the car roof and divided transversely by a raised ridge in two parts facing in opposite directions and the end of their throats forming a nozzle in the ends of said ducts, substantially as set forth. 7th. In a ventilating system for railway cars, the combination, with the raised portion of the roof of openings formed therein, and partly situated in the curved ends, said opening continued downwards by contracting throats and terminating in nozzles inserted in the open ends of ducts, a partition dividing said throat and mouth transversely, and said partition extending upward by a curved rim, substantially as set forth.

No. 43,815. Ventilating Cap.
(*Coiffe de ventilateur.*)



Harry Bradley and John V. Adams, Buffalo, New York, U.S.A., 3rd August, 1893; 6 years.

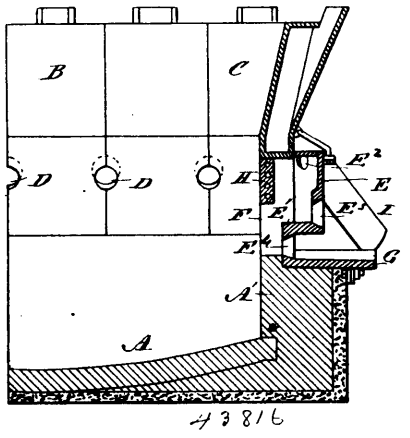
Claim.—A hollow semi-spherical ventilation cap, having a series of interior supporting lugs, terminating at their lower inner edges in shoulders nearly flush with the edge of the cap, and adapted to rest on the end of a pipe, one of said shoulders being wider than the other shoulders to permit an adjustment for different sized pipes, and an integral series of depending securing ears projected beyond said shoulders between the same and the edge of the cap to embrace the outside of the pipe, the ear extended from the wider adjustment shoulder, being provided with a threatened perforation and a clamping set screw engaging said threaded perforation, and adapted to impinge on one side of the pipe, substantially as set forth.

No. 43,816. Furnace Tap. (*Robinet de fournaise.*)

Edward Payson Mathewson, Pueblo, Colorado, U.S.A., 3rd August, 1893; 6 years.

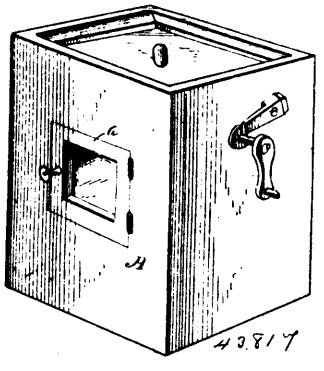
Claim.—1st. A furnace tap, provided with a casing, in communication at its rear open end with the interior of the furnace, the front of the said casing being provided with an inward extension containing the matte hole, said matte hole being arranged below the bottom edge of the water-cooled bosh, substantially as shown and described. 2nd. A furnace tap, provided with a casing, in

communication at its rear open end with the interior of the furnace, the front of the said casing being formed with a rearward



extension containing a matte hole, the front being also formed with a cleaning hole located above the extension, and one side of the said casing being formed with a slag hole to permit the escape of the slag, substantially as shown and described. 3rd. In a furnace tap, the combination with a casing, formed in its front with a rearward extension containing the matte hole, of a chute into which discharges the said matte hole, and a trough arranged on the side of the said casing, and into which opens the slag hole, substantially as described. 4th. A furnace tap, provided with a water-cooled tube adapted to extend into the furnace to pass into the molten slag merely to the matte level, the outer end of the said tube discharging on the outside of the furnace, substantially as shown and described. 5th. A furnace tap, provided with a water-cooled slag-discharging tube arranged in one side of the bosh and extending inward and downward, the inner end passing into the molten slag to within a short distance of the matte level, substantially as shown and described. 6th. A furnace tap, provided with a water-cooled slag-discharging tube arranged in one side of the bosh and extending inward and downward, the inner end passing into the molten slag to within a short distance of the matte level, and a spout arranged on the outside of the said tube and into which the outer end of the tube discharges, substantially as shown and described. 7th. A furnace tap, comprising a water-cooled matte tap jacket formed with an emergency tap hole and with a matte tap hole, and a water-cooled slag-discharging tube arranged over the said jacket and extending inward and downward to pass into the molten slag nearly to the matte level, substantially as shown and described. 8th. A furnace tap, comprising a water-cooled matte tap jacket formed with an emergency tap hole and with a matte tap hole, a water-cooled slag-discharging tube arranged over the said jacket and extending inward and downward to pass into the molten slag nearly to the matte level, and a slag-discharging spout held adjustably on the outer end of the said slag-discharging tube, substantially as shown and described.

No. 43,817. Process of Embalming.
(*Procédé d'embaumement.*)

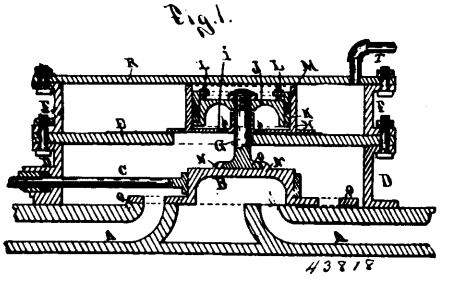


Taylor Martin, Fairmount, West Virginia, U.S.A., 3rd August, 1893; 6 years.

Claim.—1st. The method of embalming, which consists, first, in injecting into the corpse intermingled disinfectant gases, subsequently passing said gases through a purifying liquid, and finally injecting into the corpse the said purifying liquid impregnated with the same gases and an embalming compound, substantially as specified. 2nd. The method of embalming, which consists, first, in injecting into the corpse intermingled disinfectant gases; second, passing said gases through strong lime water whereby the same becomes impregnated with the gases; third, adding an embalming fluid to the lime water and injecting the whole into the corpse, substantially as specified. 3rd. The herein described method of embalming, which consists, first, in injecting into the corpse intermingled disinfectant gases; second, purifying the same, and, third, combining the gases with an embalming fluid and injecting the whole into the body, substantially as specified.

No. 43,818. Balanced Slide Valve.
(*Tiroir équilibré.*)

Fig. 1.

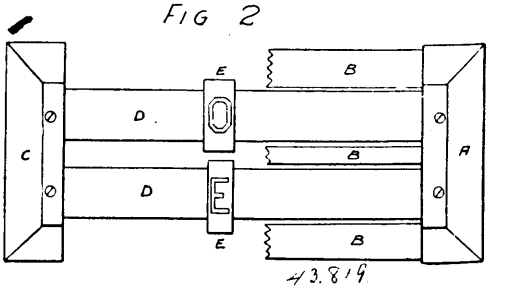


Edwin B. Sintzenich, Rochester, New York, U.S.A., 3rd August, 1893; 6 years.

Claim.—1st. The combination of a slide valve B, a slotted steam chest cover E, a vertical cylinder H sliding on said cover, a piston J, movable in said cylinder, and a stud G passing through the slotted cover and connecting said piston to the said slide valve. 2nd. The combination of a slide valve B, a slotted steam chest cover E, a vertical cylinder H, sliding on said cover, a piston J movable in said cylinder, a stud G passing through the slotted cover and connecting said piston to said slide valve, and the outer casing F, connected with a condenser or with other means of producing a diminished pressure. 3rd. The combination of a slide valve B, and a balancing device adapted to lift the slide valve connected thereto by a stud G, removably dove tailed into the top of the slide valve, arranged and operating as shown and described. 4th. In a sliding balancing device for slide valve, a series of longitudinal grooves *a a*, in the face of the seat of said device from which the motive gas or vapour is excluded. 5th. In a balanced slide valve having a balancing device sliding upon the top of the steam chest cover, a series of longitudinal grooves *a a*, in the face of the steam chest cover, each groove being of such length that when the grooves are uncovered at one end the balancing device covers them at the other end, and means for excluding the motive gas or vapour from said grooves. 6th. The combination of a slide valve B, a slotted steam chest cover E, a vertical cylinder H, sliding on said cover, a piston J movable in said cylinder, a stud G passing through the slotted cover and connecting said piston to said slide valves, and an extension Q on each end of said slide valves having a port therethrough, substantially as shown and described. 7th. The combination of a slide valve B, a slotted steam chest cover E, a vertical cylinder H sliding on said cover, a piston J movable in said cylinder, a stud G passing through the slotted cover and connecting said piston to said slide valve, and an extension Q on each end of said slide valve, having a port therethrough, together with a seat for said slide valve smaller than the face thereof, substantially as shown and described.

No. 43,819. Door Plate. (*Plaque de porte.*)

FIG 2

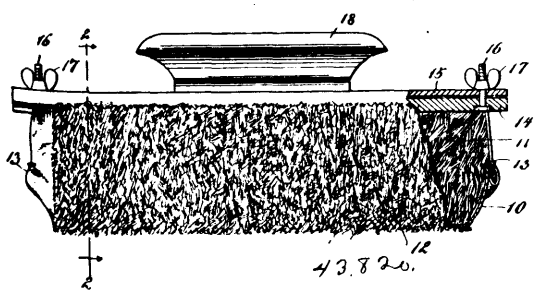


William Wesley Owens, Peterboro', Ontario, Canada, 3rd August, 1893; 6 years.

Claim.—1st. A door plate having the frame thereof composed of two heads or ends having bars on each to interlock and secure to the opposite head, substantially as described. 2nd. A door plate having the letters or numerals therein formed on a separate plate for each one, and thereby separable and interchangeable, substantially as

described. 3rd. The combination in a door plate of the letters or numerals having a separate plate for each, with the frame of said door plate, composed of two heads or ends having bars on each to interlock and secure to the opposite head, substantially as described.

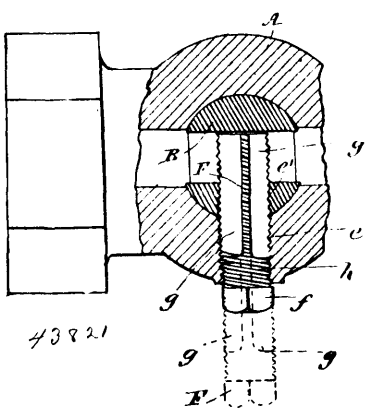
No. 43,820. Burnisher. (*Brunissoir.*)



Thomas Lloyd, Boston, Massachusetts, U.S.A., 3rd August, 1893; 6 years.

Claim.—A burnisher, comprising a tubular casing closed throughout its length and at its ends, and provided with a yielding filling, the base piece or backing 14, extending longitudinally through the casing along one side thereof and provided with upward projecting bolts 16, 16, the handle 18, having a top piece 15, apertured at its ends for said bolts, and nuts on the bolts clamping the top piece 15, to the base or backing 14, substantially as set forth.

No. 43,821. Stop Cock. (*Robinet de retenue.*)



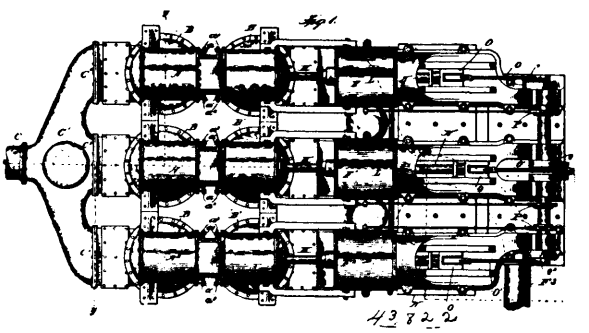
James Constant McNab, Montreal, Quebec, Canada, 3rd August, 1893; 6 years.

Claim.—1st. A stop cock, having a valve to control the passage of the fluid or like operating medium and an auxiliary movable part or parts adapted, when in one position, to lock such valve against movement, and by change of position to secure the escape of such fluid. 2nd. In a stop cock, having a valve to control the passage of a fluid or like operating medium, a movable locking device adapted, when in position, to lock such valve against movement, and by change of position to secure the escape of such fluid. 3rd. In a stop cock, having a valve to control the passage of a fluid or like operative medium, and suitable ports, a movable locking plug or auxiliary valve working through an opening in the valve chamber casing constructed with such an opening and adapted upon movement in one direction to engage and hold against movement the valve proper, constructed to receive it, and by movement in a different direction tending to release the valve proper, securing the escape of said fluid before such valve is released. 4th. In a stop cock, having a valve to control the passage of a fluid or like operative medium, a movable partially channelled locking device adapted when in one position to lock such valve against movement and by change of position to secure the escape of such fluid by way of the channelling thereof. 5th. In a stop cock, having a valve to control the passage of a fluid or like operative medium and suitable ports, a movable plug or auxiliary valve channelled for a portion of its length, screw threaded to work in or through a correspondingly screw threaded opening in the valve chamber casing, having such opening and adapted upon movement inwardly to enter an opening in said valve so as to hold it against movement (the said valve being constructed with such an opening) and by outward movement to effect an exhaust of such fluid into the open air by way of such channelling before freeing such valve, as set forth.

No. 43,822. Steam Pumps. (*Pompe à vapeur.*)

Caleb H. Booth, Dubuque, U.S.A., 3rd August, 1893; 6 years.

Claim.—1st. In a steam actuated dredging pump, the combination with valved supply and discharge pipes, of three or more pump cylinders arranged parallel and divided centrally and having pumping chambers connected to their under sides at opposite ends, diaphragms in the pumping chambers, forming closed chambers above, in which a suitable liquid is placed, plungers in the cylinders, exterior packing for the plungers located on the respective sections of the cylinders, and steam actuated pistons connected directly with the plungers, substantially as described. 2nd. In a steam actuated dredging pump, the combination with valved supply and discharge pipes, of a series of three or more pump cylinders divided centrally and arranged parallel and having pumping chambers at opposite ends, diaphragms secured across the pumping chambers, plungers in the cylinder above the diaphragms, formed with air storage compartments communicating with the interior of the cylinders, packing for the plungers, engaging the outer faces thereof and carried by the respective sections of the cylinders, and means for actuating the plungers, substantially as described.. 3rd. In a steam actuated dredging pump, the combination with the inlet and discharge pipes and valves in the pipes, of a horizontally disposed pump cylinder having pumping chambers at opposite ends thereof, diaphragms across the pumping chambers, and a plunger in the cylinder, having an air storage compartment communicating with the interior of the cylinder above the diaphragm, substantially as described. 4th. In a dredging pump, the combination with the suction and discharge pipes, of a pump cylinder having pumping chambers at opposite ends thereof, flexible diaphragms across the pumping chambers, a plunger in the cylinder and an air storage compartment communicating with the interior thereof above the diaphragm, substantially as described. 5th. In a dredging pump, the combination with a series of three or more pumping cylinders, each having pumping chambers at opposite ends, of diaphragms across the pumping chambers, valve suction and discharge pipes leading into the chambers below the diaphragms, plungers in the cylinder, air storage compartments communicating directly with the interior of the cylinders above the diaphragm, steam cylinder for each pump cylinder, connection between the pistons thereof and the plungers, a crank shaft, and pitmen connecting the cranks of the shaft with the steam pistons, substantially as described.



No. 43,823. Lithographers' and Printers' Roller.
(*Rouleau pour lithographes et imprimeurs.*)

Frank Horsell, Leeds, County of York, England, 3rd August, 1893; 6 years.

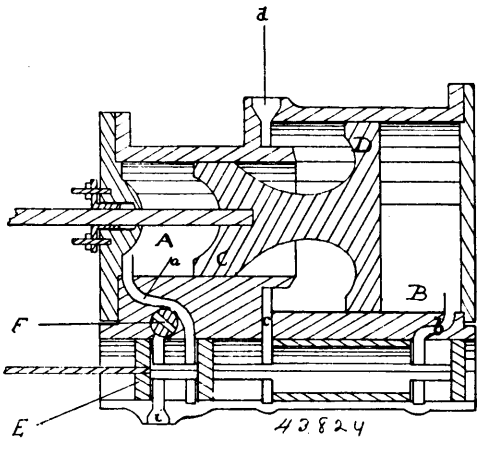
Claim.—1st. The application to lithographers' and printers' rollers of a woven seamless tube to be used as an outer covering and as an under covering (or packing), as described. 2nd. The application to lithographers' and printers' rollers of a woven seamless tube having a covering of suitable cement or solution and used as an under or outer covering, as described.

No. 43,824. Steam Engine. (*Machine à vapeur.*)

George H. Waring and Oscar B. White, St. John, New Brunswick, Canada, 4th August, 1893; 18 years.

Claim.—1st. The combination, in a steam engine, of two cylinders of different diameters having a common centre and length, and opening freely into each other and having two pistons of different diameters solidly connected and adapted to fit and reciprocate in them respectively by means of live steam being admitted to the small cylinder behind the small piston to cause the outward stroke and then being cut off by the valve and allowed to expand and pass to the large cylinder in front of the large piston to cause the return stroke, and the dead steam is then forced out of the large cylinder into both the cylinders between the pistons and thence out through the exhaust port and pipe, all working substantially as described and shown in the accompanying drawing. 2nd. In a steam engine, the combination of a ported steam chest and valve, constructed or working substantially as described and shown in the accompanying drawing. 3rd. In a steam engine, an auxiliary or starting valve for admitting live steam to the low pressure piston through or by means of the high pressure cylinder ports, and working substantially as described and shown in the accompanying drawing. 4th. In a steam

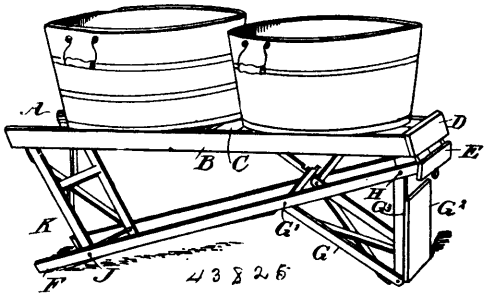
engine, the combination of two single acting cylinders of different diameters having solidly connected pistons and a ported cylindrical



valve and steam jacket and an auxiliary valve, all working substantially as described and shown in the accompanying drawings.

No. 43,825. Combined Step Ladder and Bench.
(*Echelle à marche et banc combinés.*)

Fig 1.



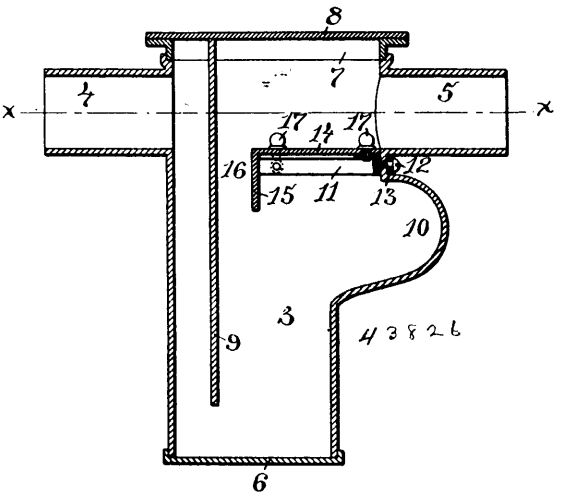
Ensign B. Stebens, Lakeview, Michigan, U.S.A., 4th August, 1893; 6 years.

Claim.—1st. The combination, with the ladder, the folding brace F, and the transverse pivot rod H, of the frame G, pivoted to the brace, the shelf carrying bars G^3 pivoted to said frame and having notches as described, which adapt it for engagement with the rod H, all arranged as shown and described. 2nd. The combination, with the step ladder proper, having the transverse pivot rod H, and the notches L^1 in its lower portion, of the adjustable head support composed of the frame G and shelf carrying bars G^3, having notches as specified, and the adjustable pivoted foot supporting frame K, adapted to engage said notches L^1, whereby the step ladder may be adjusted at different heights when used as a bench, as specified.

No. 43,826. Sewer Trap. (*Fermeture d'égout.*)

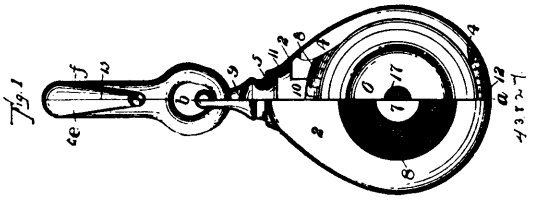
Robert Newton, Providence, Rhode Island, U.S.A., 4th August, 1893; 6 years.

Claim.—1st. In a trap, the combination with a chamber divided by a vertical partition extending from the upper end of the chamber downward to near the bottom and having inlet and outlet openings near the upper end, of a horizontal partition extending from the side of the chamber below the outlet toward the central vertical partition, as described. 2nd. A sewer trap having a chamber divided by a vertical partition into a downward and upward duct or chamber provided at their upper ends with lateral inlet and outlet openings, and a horizontal partition extending from the side of the chamber, below the lateral outlet opening, toward the vertical partition so as to form a long narrow opening between the vertical and the horizontal partitions, as described. 3rd. In a sewer trap, the combination with the chamber 3 divided by the partition 9 into inlet and outlet chambers, the inlet 4, and the outlet 5, of two oppositely extending partitions 14, dividing the inlet and outlet from the chamber 3, adapted to contract the inlet and outlet and permit the reversal of the trap, as described. 4th. In a sewer trap, the combination with a chamber divided by a downwardly extending partition, and lateral inlets and outlets provided at opposite sides of said chamber, of a horizontal deflector removably secured below the outlet and having a depending lip, as described. 5th. A trap consisting of a cylindrical chamber, having inlet and outlet openings on opposite sides near one end, divided part of its length by a central partition extending from the top to near the bottom of the chamber and at one end pro-



vided with a cap and having two partitions extending horizontally from the sides, below the inlet and outlet openings, towards the central partition so as to form, on each side of the partition, long narrow openings connecting the inlet and outlet chambers with the body of the trap, as described. 6th. In a sewer trap, the combination with a chamber having an inlet and outlet, a recess 10 formed below the outlet, and a vertical partition extending from the top of the chamber nearly to the bottom of the same, of the frame 11 removably clamped to the side of the chamber below the outlet, and the removable partition 14, having the depending lip 15, secured to said frame 11, as and for the purpose set forth.

No. 43,827. Pulley Block. (*Poulie.*)



John Lang Pope, Cleveland, Ohio, U.S.A., 4th August, 1893; 6 years.

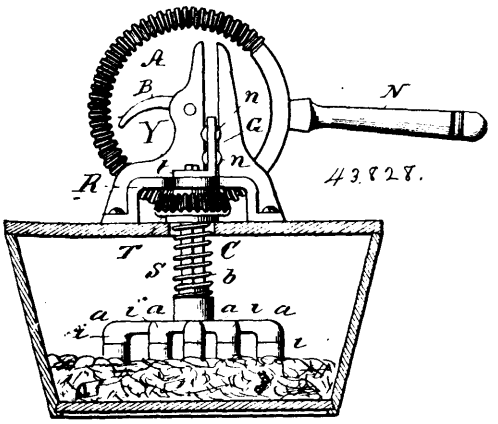
Claim.—1st. A pulley block having a metal shell, a sheave having a pin, a swivel and swivel eye, a collar between the shell and swivel, straps extending from the collar to the pin, and a hook engaging the swivel eye, substantially as described. 2nd. A pulley block having a metal shell formed of pressed laterally dividing sections, said sections having circular filling blocks of soft material, substantially as described. 3rd. A pulley block having a metal shell, a sheave having a pin, a swivel, a collar between the shell and swivel, and straps extending from the collar to the pin, substantially as described. 4th. A pulley block having a metal shell, interior filling blocks, a sheave having a pin, and straps extending from the top of the pulley block through slots in the filling blocks, substantially as described. 5th. A pulley block having a swivel with an eye, and a hook whose eye is linked into the eye of the swivel, substantially as described. 6th. A pulley block having an external laterally divided metal shell, sheaves and inner circular filling blocks of softer material contained by the shell, and situate at the outer sides of the sheaves and between the sheaves, substantially as described. 7th. A pulley block having a hollow hook made of attached pressed sections, substantially as described. 8th. A pulley sheave composed of sections divided in the plane of the sheave, said sections having partial grooves adapted to meet, and having laterally fitting webs, and lateral cheeks within the circle of the webs, which extend laterally beyond the marginal limits of the sheave groove, substantially as described. 9th. A pulley sheave, composed of sections divided in the plane of the sheave, said sections having partial grooves adapted to meet and having laterally fitting webs, and lateral cheeks within the circle of the webs, which extend laterally beyond the marginal limits of the sheave groove, and interposed thimble, substantially as described.

No. 43,828. Washing Machine. (*Machine à blanchir.*)

Edward G. Minnemeyer, Chicago, Illinois, U.S.A., 4th August, 1893; 6 years.

Claim.—1st. In a washing machine of the character described, the combination of the rubber which rotates intermittingly in hori-

zontal planes and also rises and falls, the carrier which imparts horizontal rotary movement to the rubber and which rises and falls,



the power devices, means driven thereby for rotating the rubber, and a two part lifting mechanism of which one part is connected to said carrier and the other part to the power mechanism, and which parts are intermittingly separated from each other while the mechanism for rotating the rubber is in operation, substantially as described. 2nd. In a washing machine of the character described, the combination of a rubber which intermittently rises and falls and intermittingly rotates in horizontal planes, a carrier imparting rotary horizontal movements to the rubber, and rising and falling relatively to the contents of the tub, and intermittingly acting devices for positively lifting said carrier away from the contents of the tub simultaneously with the rising of the rubber, and a spring bearing downward on the rubber and bearing upward independent of the carrier, substantially as set forth. 3rd. In a washing machine, the combination with the rubber or agitator which is rotatory horizontally, and is adapted to reciprocate vertically, and the rotatory shaft which receives the power, of the elongated cam carried by the said power shaft, and the laterally extending projection carried by the rubber or agitator, and lying in the path of the said cam, substantially as set forth, whereby when the rubber or agitator is rotating it will also be moved gradually vertically by the said cam and projection. 4th. In a washing machine of the class named, the combination of the cam B, fixed upon the cog wheel A, and connecting with the roller *e* in the rack G, the rack G provided with the antifriction rollers *n*, *n*, within the frame work, and the roller *e* without the frame work, the rack working in a slot in the standard or frame Y, and connecting with the stirrer by means of the square bar S, all substantially as described.

No. 43,829. Washing Machine. (*Machine à blanchir.*)

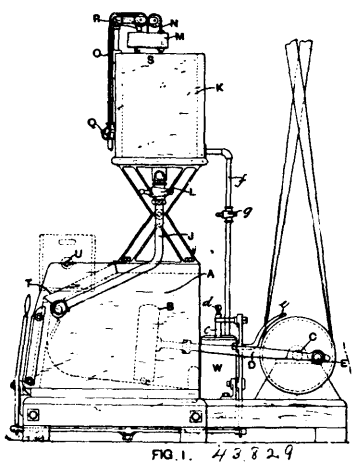


FIG. 1.

James Hesselwood, of Hanover Lane, Leeds, England, 4th August, 1893; 6 years.

Claim.—1st. In washing machines, of the type herein described, a beater or squeezer having a hinged or pivoted lower part or plate, constructed substantially as hereinbefore described and illustrated by the accompanying drawings. 2nd. In washing machines of the type herein described, the combination with a beater of a trough, having an inclined bottom terminating with a curved part, substantially as hereinbefore described and as illustrated by the accompanying drawings. 3rd. In washing machines, of the type set forth, a trough having an inclined bottom terminating in an outlet constructed to facilitate the free escape of the suds or fluid expressed from the clothes by the forward stroke of the beater, substantially as set forth and as illustrated, by the accompanying drawings. 4th. In a washing machine of the type herein described, a curved or inclined part above the bottom of the trough and parallel with the beater, constructed and arranged, substantially as and for the purpose hereinbefore described and as illustrated by the accompanying drawings. 5th. In combination, with washing machines, of the type herein described, a measuring box, having trunnions capable of resting upon bearings formed upon the sides of the apparatus, substantially as and for the purpose hereinbefore described and as illustrated by the accompanying drawings.

No. 43,830. Steam Washing Machine.

(*Machine à blanchir à la vapeur.*)

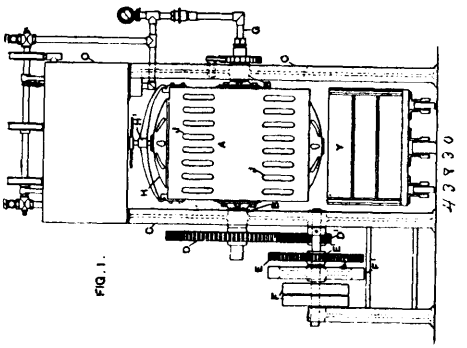


FIG. 1.

James Hesselwood, of Hanover Lane, Leeds, England, 4th August 1893; 6 years.

Claim.—1st. In a washing machine, of the type herein described, a steaming box of cubical rectangular or prismatic form, mounted on trunnions, provided at one end with a man hole or cover and arranged at such a height above the floor as to permit a truck to be run under the box, constructed substantially as set forth, and as illustrated by the accompanying drawings. 2nd. In a washing machine, of the type herein described, a rectangular steaming box, having fluted or corrugated inner surfaces, and a removable or partly removable corrugated or fluted partition or partitions, constructed and arranged, substantially as set forth, and as illustrated by the accompanying drawings. 3rd. In a washing machine, of the type herein described, the arrangement of the measuring cistern above the steaming box, and the combination therewith of the steam and water admission regulating devices, constructed and operated as set forth, and as illustrated by the accompanying drawings. 4th. The combination and arrangement in a washing machine, of the vertically moving cistern K, provided with a drip cock, a plug N, in the bottom of the cistern, a projection fixed below the plug, a spindle P, controlling the motion of the cocks of the steam and water services respectively, two pulleys on the spindle P, cords or chains passing over the pulleys and connected at one end with the cistern and at the other end to a counter weight a brake disc on the spindle P, and a stop engaging there with, and a plug valve S, suspended by a chain or cord connected with and passing around a third pulley on the spindle P, substantially as set forth. 5th. The combination and arrangement in a washing machine, of a rising and falling cistern, of a brake disc, rotated by the motion of the cistern, a brake strap terminated with a screwed part and adjustable nut, a recess in the brake disc, a spring stop fitting into the recess, a screwed part on the spring stop, carrying an adjacent nut, and a lever through which the screwed part A, of the brake and spring stop pass, and which, when moved downwards, operates the spring stop and brake successively by contact with the adjustable nuts, substantially as set forth.

No. 43,831. Insecticide. (*Insecticide.*)

Joseph Brown, Mount Clemens, Michigan, U.S.A., 4th August, 1893; 6 years.

Claim.—1st. An insect destroying compound, consisting of a mixture of pulverized cudbear, carmine, cloves, borax and an inert diluent powder, in substantially the proportions specified.

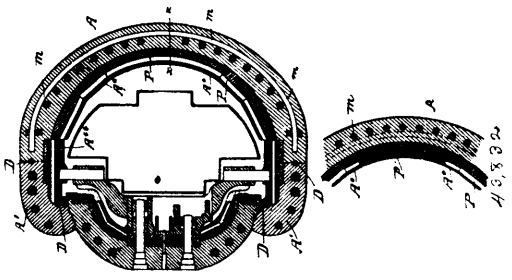
No. 43,832. Burglar Proof Safe.

(*Appareil de protection pour coffres-forts.*)

William Corliss, Providence, Rhode Island, U.S.A., 4th August, 1893; 6 years.

Claim.—1st. In a burglar proof safe, a shell the exterior face of which is of hard metal, and the interior portion of which is made separately, as a lining, and is traversed by bars of hard metal, all combined and arranged substantially as herein specified. 2nd. In a burglar proof safe, an exterior shell of hard metal traversed by bars of soft iron and a separately formed lining of soft iron traversed by bars of hard steel applied together, substantially as herein specified. 3rd. In a safe, a lining of separately formed pieces matched together like the voussoirs of domes, so as to be self supporting, as herein specified. 4th. In a burglar proof safe, an exterior shell formed of separate pieces screw threaded interiorly near the lines of junction, in combination with an exteriorly screw threaded connecting ring, substantially as set forth. 5th. In a burglar proof safe, an exterior

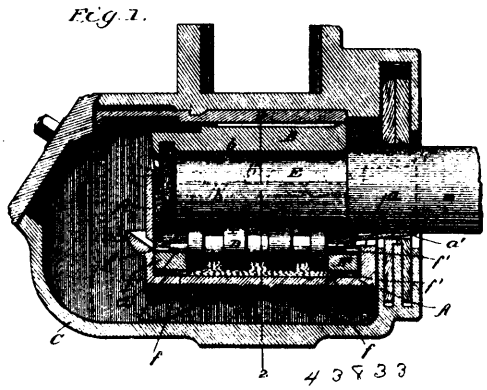
sheel formed of separate pieces screw threaded interiorly near the lines of junction, in combination with a lining formed of detached



pieces matched together, and an exteriorly screw threaded connecting ring forming a part of the lining and abutting against the outermost of the other lining pieces, as set forth. 6th. The burglar proof safe described, having an exterior shell A A^1 in separate pieces, screw threaded in their interior near the lines of junction, and lining A, extending across the joint on the interior, separately formed of soft iron correspondingly screw threaded with hard steel bars P inclosed therein, adapted to serve the double function of a burglar proof lining and a connection for the parts of the outer shell, as herein specified.

No. 43,833. Axle Lubricator. (*Graisseur.*)

Fig. 1.



James Shaw Patten, Baltimore, Maryland, U.S.A., 4th August, 1893; 6 years.

Claim.—1st. In a car axle bearing, the combination, with the lubricant holding box and take up roller, of the reversible blocks supported in the former and having journal grooves extending entirely across their face whose width is twice the length of the journals of said roller, as shown and described. 2nd. In a car axle bearing, the combination, with the lubricant holding box and take up roller, of the bearing blocks for the latter having journal grooves arranged opposite and parallel in upper and under sides, and adapted to be reversed top for bottom, as shown and described. 3rd. In a car axle bearing, the combination, with the oil, take up roller and the lubricant holding box having projections on its bottom, of the roller bearing blocks having sockets to receive said projections, as shown and described for the purpose specified. 4th. In a car axle bearing, the combination, with the body portion A, of the cover bearing having the depending flange, conforming to and fitting within the upper edge of part A, as shown and described. 5th. In a car axle bearing, the combination, with the body portion A, of the cap or cover having the dependent flange conforming to and fitting within part A, and having notches formed around its edges, as shown and described. 6th. In a car axle bearing, the body portion of the lubricant holding box, having the rearwardly extended and inwardly inclined semi-circular flange which conforms to the axle, provided with ribs aud grooves for removing lubricant from said axle and conveying it back into the box, as shown and described. 7th. In a car axle bearing, the body portion A of the lubricant holding box, provided with a forwardly inclined groove in its sides and a concavity and opening at its front end, for receiving the lubricant that passes over the upper edge of part A, and reconveying it into the chamber of the same, as shown and described.

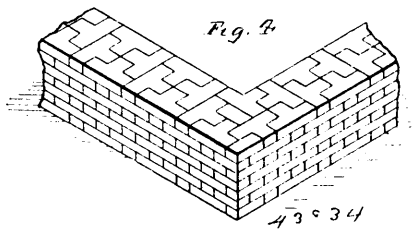
No. 43,834. Building Block or Brick.

(*Bloc et brique de construction.*)

George E. Briggs, Pittsburg, Pennsylvania, U.S.A., 4th August, 1893; 6 years.

Claim.—As an improved article of manufacture, the herein-described building block, comprising the oblong part A, and the substantially square part 4, said part 4 being secured to the edge of the part A opposite the middle thereof, and extending therefrom on

Fig. 2.



a line with the top and bottom thereof, said parts being of greater width then depth, substantially as shown and described.

No. 43,835. Carrier Package.

(*Envelope pour transporter les marchandises.*)

Fig. 2

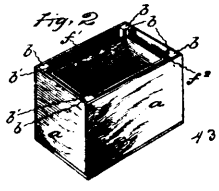
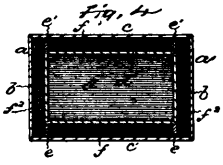


Fig. 4

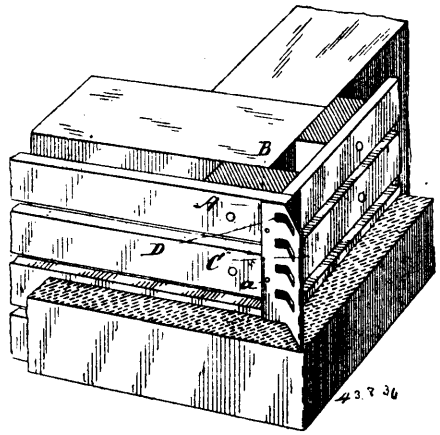


Frederic Merwin Peck, Hartford, Connecticut, U.S.A., 4th August 1893; 6 years.

Claim.—A package for merchandise, consisting of two receptacles, and exterior receptacles with solid air excluding walls, interior corner posts extending from top to bottom to which the wall are secured, having their inner edges channelled, and an interior receptacle with solid air excluding walls of less length, width and depth than the exterior receptacle, of such size that its corners loosely fit the channels in the corner posts, and loose strips passing across, above and below the inner receptacles between the channels of the two adjacent posts, whereby the inner receptacle when in place is held from contact with, but braces and strengthens the outer air tight receptacles, substantially as described.

No. 43,836. Unbreakable Angle Mould.

(*Angle de moule non-brisable.*)



Richard James Hoidge, Toronto, Ontario, Canada, 4th August, 1893; 6 years.

Claim.—1st. A metal plate shaped to fit the corner to be plastered and having a projection to extend to the edge of the corner to be plastered, substantially as and for the purpose specified. 2nd. A metal plate shaped to fit the corner to be plastered, and having a projection to extend to the edge of the corner to be plastered, the said projection being perforated to form a bond for the plaster, substantially as and for the purpose specified. 3rd. A metal plate having an angle base to fit the corner to be plastered, and a projection to extend to the edge of the corner to be plastered, substantially as and for the purpose specified. 4th. A metal plate having an angle base to fit the corner to be plastered, and a projection to extend to the edge of the corner to be plastered, the said projection being perforated to form a bond for the plaster, substantially as and for the purpose specified.

No. 43,837. Drier for Varnishes, Oils, etc.

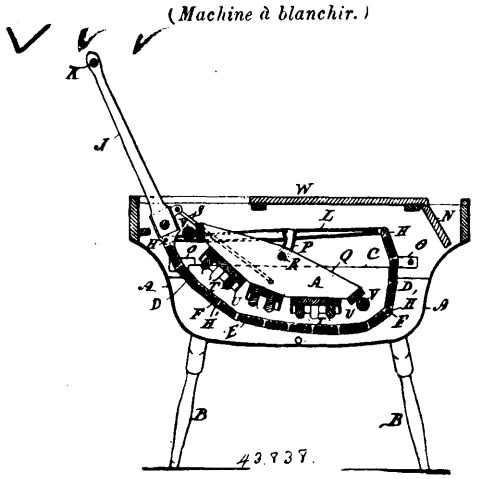
(*Dessiccatif pour vernis, huiles, etc.*)

Thomas G. Hoyer, New York, State of New York, U.S.A., 4th August, 1893; 6 years.

Claim.—1st. A drier comprising as its ingredients hydrated manganese dioxide, and a calcium salt or oxide. 2nd. The mode of preparing the drier described, which consists in first preparing a solution in water of a manganese salt, as the sulphate or chloride, then slowly adding to said solution powdered calcium hydrate, and stirring the mass until the reaction is effected, and then drying the mass.

No. 43,838. Washing Machine.

(*Machine à blanchir.*)

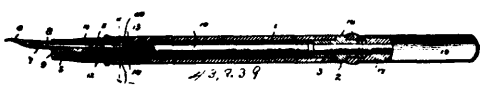


James L. Sprague, Minneapolis, Minnesota, U.S.A., 1893; 6 years.

Claim.—1st. The combination, with the suds box of the flexible clothes trough composed of sections hinged together, the end sections journalled within said box, and one end provided with a handle to flexibly move the trough, and an oscillating rub board within said trough, and operating as described, for the purpose set forth. 2nd. The combination, with the suds box, of a flexible clothes trough journalled therein, and an oscillating rub board hung in said trough and connected thereto to move horizontally coincident with the flexible movement of the trough, by a handle, as and for the purpose set forth. 3rd. The combination, with the suds box, of a removable and flexible clothes trough hung therein and provided with a handle at one end and composed of rubbing slats, and a rub board yoked to said handle and journalled in said trough, and having a combined oscillating and horizontal movement, coinciding with the trough, as set forth. 4th. The combination, with the suds box of the flexible clothes trough having a flexible movement therein, a rub board journalled to oscillate in said trough, and a yoke connecting said rub board to handles at one end of said trough, for combined operation, as set forth. 5th. The oscillating rub board Q, having a rubbing surface consisting of pins T, enclosed by a rim U, and having a roller V, at the ends, in combination with a flexible clothes trough E, within a suds box, as set forth.

No. 43,839. Fountain Pen. (*Plume-fontaine.*)

Fig. 1

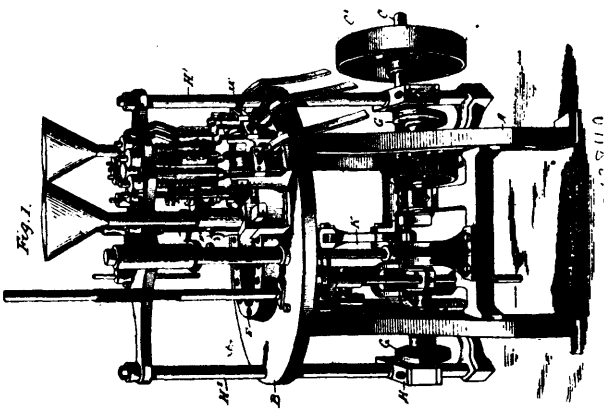


William Albert Leary, Holyoke, Massachusetts, assignee of Edward Garry Peck and George Edward O'Meara, Seymour, Connecticut, all in the U.S.A., 5th August, 1893; 6 years.

Claim.—1st. In a fountain pen, the combination with the reservoir and penholder, of a tube within the penholder having air and ink passages, a feeder within the tube also having air and ink passages, and a controlling rod the forward end of which enters the tube and abuts against the feeder, said rod having air and ink passages adapted to register with the passages in the tube and feeder, so that when said passages are in line with each other air will pass into the reservoir through the feeder, rod and tube, and ink will pass to the pen through the rod, feeder and tube, and when said rod is turned so that said passages are out of line the entrance of air into the reservoir, and in the passage of ink therefrom are cut off. 2nd. In a fountain pen, the combination with the feeder, tube and controlling rod, each of which is provided with an air passage, and an ink passage adapted to register with similar passages in the other parts, of a plug at the base of the reservoir through which the rod passes, and which is provided with a cut away portion, a pin extending from the rod, adapted to engage the ends of the cut away portion to limit the oscillation of the rod, and a finger piece for convenience in manipulating the rod. 3rd. In a fountain pen, the combination with the feeder, tube and controlling rod, each of which is provided with an air passage, and an ink passage adapted to register with similar passages in the other parts, of a plug at the base of the reservoir through which the rod passes, and a finger piece secured to the rod, said finger piece and plug being provided with suitable marks to indicate when the air and ink passages are in line with each other. 4th. In a fountain pen, the combination with the pen holder, and a tube within said holder having air and ink passages at its rear end, of a feeder having air and ink passages, and an oscillatory rod having air and ink passages adapted to register with the passages in the tube and feeder, so that when said passages are in line with each other air will enter the reservoir and ink will pass therefrom, and when the rod is partially turned the entrance of air into the reservoir and passage of ink therefrom are wholly cut off. 5th. In a fountain pen, the combination with the pen holder having slots 20, and a tube within said holder having air and ink passages at its rear end, of a feeder having air and ink passages, and an oscillatory rod having air and ink passages adapted to register with the passages in the tube, feeder and penholder, so that when said passages are in line with each other air will enter the reservoir and ink will pass therefrom, and when the rod is partially turned the entrance of air into the reservoir and the passage of ink therefrom are wholly cut off.

No. 43,840. Cartridge Loading Machine.

(*Charge-cartouche.*)



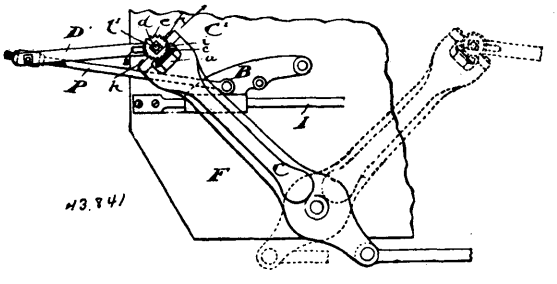
Elliott S. Rice, Chicago, Illinois, assignee of Charles S. Hisey, Aurora, Indiana, all in the U.S.A., 5th August, 1893; 6 years.

Claim.—1st. In a machine for loading cartridges, the combination, with the primary actuating mechanism and the tool carrier, of two reciprocating shafts for moving the tool carrier, provided with box yokes at their lower end, substantially as described. 2nd. In a machine for loading cartridges, the combination, with the primary actuating mechanism, of a reciprocating shaft carrying independently pivoted levers for giving the crimpers vertical movement, and for inserting shells into the shell carrier through intermediate mechanism, substantially as described. 3rd. In a machine for loading cartridges and in combination with the actuating mechanism thereof, a rotating shell placer operated thereby, whereby the cartridge shells are successively transferred from said placer to the shell carrier, substantially as described. 4th. In a machine for loading cartridges, the combination, with a shell carrier, of a rotating shell placer provided with cells for the ingress and egress of the shells therefrom, substantially as described. 5th. In a machine for loading cartridges, the combination, with the shell carrier, shell feeding tube and a vertically reciprocated rod, of a rotating shell placer, provided with shells or holes for the ingress or egress of shells therefrom, substantially as described. 6th. In a machine for loading cartridges, the combination, with the shell carrier, shell feeding tube, and a vertically reciprocated rod, of a horizontally rotating shell placer provided with cells and means for revolving the same, substantially as described. 7th. In a machine for loading cartridges, the combination, with the actuating mechanism, of a shell carrier in the form of a ring provided with cells, and having notches in the inner rim and gear teeth on the periphery of its lower part, and mechanism for rotating the same, substantially as described. 8th. In a machine for loading cartridges, the combination, with a shell carrier, substantially as described, of a vertical shaft provided with a cap having a pin near its periphery carrying a block which slides in a box formed in an oscillating lever, an oscillating lever, a cam on the driving shaft, a rod having a crank on its lower end provided with a pin or roll riding in the groove of the cam, and on its upper end a short arm or lever, and a spring pressed lever whereby the shell carrier is given an intermittent movement, substantially as described. 9th. In a machine for loading cartridges, the combination, with the driving

shaft, having crank wheels at each end provided with crank pins, of two reciprocating shafts having box yokes at their lower ends, in which said crank pins slide in blocks, and carrying at their upper ends a tool carrier provided with loading tools, substantially as described. 10th. In a machine for loading cartridges, the combination, with the powder and shot magazines, of a charge slider or bar provided with an aperture having a cup or ring to regulate the charge of powder or shot, substantially as described. 11th. In a machine for loading cartridges, the combination, with the powder and shot magazine, of a charge slide provided with an aperture, and having gear teeth at one end, a segment gear and rack bar fixed to a guide rod secured to the tool carrier whereby with the upward and downward movement of the tool carrier the charge slide is given a forward and backward movement, as and for the purpose described. 12th. In a machine for loading cartridges, the combination with the shell carrier, the wad feeding, wad cutting and placing devices, and the powder and shot magazines, of two crimpers, successively operating by suitable means and mechanism upon the cartridge shell, substantially as described. 13th. In a machine for loading cartridges, the combination with the rotating shell placer, shell carrier and tool carrier, of shell feeding and shell delivery tubes, and an ejecter, substantially as described. 14th. In a machine for loading cartridges, the combination with the driving shaft, of cam D, having opposed faces, a rod, as K, having an arm at its lower end, provided with a pin or roll working in and operated by said cam, and at its upper end a short arm or lever K^2, whereby the locking lever as K^3, is released from engagement with the shell carrier, substantially as described. 15th. In a machine for loading cartridges, the combination with the shell carrier, in the form of a ring, a tool holder, and loading devices, of wad feeding rolls, wad cutting and wad placing devices, arranged on a circular line, and ratchet and pawl, mechanism for operating the wad feeding rolls, substantially as described. 16th. In a machine for loading cartridges, the combination with the primary actuating mechanism, shafts H^1, H^1, tool holder I, slotted lever W^2, and pawl and ratchet W^1, of the wad feeding rolls W, arranged in a circular line on the table B, and geared together by the bevel gears W, whereby said rolls are given simultaneous movement, substantially as described. 17th. In a machine for loading cartridges, the combination with the ring shaped shell carrier F, provided with cells f^1, for receiving and holding the shells while being charged, and the tool carrier I, of the powder and shot magazines, having actuated charge slides provided with charge regulating rings, and the wad cutting and wad placing devices arranged above and in circular line with said shell carrier, whereby predetermined charges of powder and shot are delivered into the shells in said carrier, and wads are cut and rammed or placed on said charges successively, as set forth and described.

No. 43,841. Device for Converting Motion.

(*Appareil pour changer le mouvement.*)

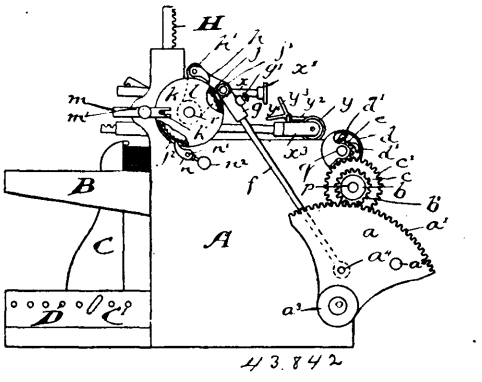


James Lackie Morrison, Toronto, Ontario, Canada, assignee of Thomas A. Briggs, Arlington, Massachusetts, U.S.A., 5th August, 1893; 6 years.

Claim.—1st. The combination of the stationary segmental gear A, the rock arm C, pivoted to the centre of said gear, the shaft *a*, extending lengthwise of said arm, and journalled thereon, the pinion *b*, fixed to one end of said shaft and engaging the gear A, the mitre pinion *c*, on the opposite end of said shaft, the shaft *d*, journalled to the free end of the rock arm at right angles to the shaft *a*, the pinion *e*, fixed to the shaft *d*, and meshing with the pinion *c*, and the arm D, also fixed to the latter shaft, to move therewith, as set forth. 2nd. In combination with the stationary gear A, the rock arm C, pivoted to the centre of said gear, the shaft *a*, extending lengthwise of said rock arm and journalled thereon, the pinion *b*, fixed to one end of said shaft and engaging the gear A, the mitre pinion *c*, fixed to the opposite end of said shaft, the cap C^1, attached to the free end of the rock arm and provided with the journal bearing d^1, at right angles to the shaft *a*, the shaft *d*, extending through said journal bearing, the pinion *e*, fixed to one end of the latter shaft and meshing with the pinion *c*, and the arm D, fixed to the opposite end of the shaft *d*, substantially as described and shown. 3rd. In combination with the guide I, and slide B, mounted thereon, the stationary gear A, the rock arm C, pivoted to the centre of said gear, the shaft *a*, journalled on said arm lengthwise thereof, the pinion *b*, fixed to said shaft and engaging the gear A, the pinion *c*, fixed to the opposite end of said shaft, the shaft *d*, journalled to the free end of the rock arm at right angles to the shaft *a*, the pinion *c*, fixed to one end of shaft *d*, and meshing with pinions *c*, the arm D, fixed to the opposite end of shaft *d*, and the pitman P, pivotally connected to the free end of the arm D, and to the slide B, substantially as described and shown. 4th. In combination with the rock arm C, longitudinal shaft *a*, transverse shaft *d*, and pinions transmitting motion from the longitudinal shaft to the transverse shaft, the arm D, connected longitudinally adjustable to the transverse shaft to regulate the thrust of said arm, as set forth.

No. 43,842. Paper Feeding Machine.

(*Appareil pour fournir le papier aux presses à imprimer, etc.*)

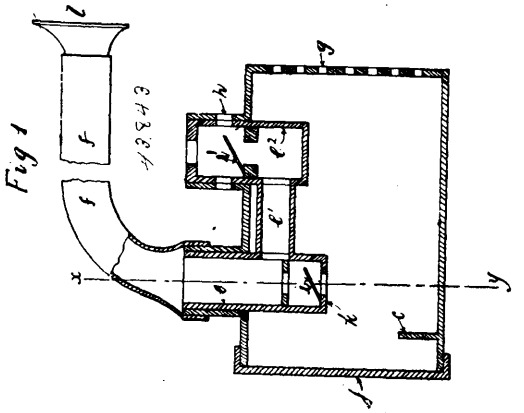


James Lakie Morrison, Toronto, Ontario, Canada, assignee of Thomas A. Briggs, Arlington, Massachusetts, U.S.A., 5th August, 1893; 6 years.

Claim.—1st. In combination, with the paper supporting table and a clamp holding the paper in a pile upon said table, a reciprocating bar carrying rollers back and forth upon the paper, a pawl and ratchet locking said rollers in one direction, and a dog locking the rollers temporarily in the opposite direction during the reciprocating movement of the aforesaid bar, as set forth. 2nd. In combination, with the paper supporting table and a clamp holding the paper piled on said table, a reciprocating bar moving parallel with the line of feed, a yoke attached to said bar, an arbour journalled to said yoke at right angles to the reciprocating bar, rollers and a ratchet wheel fixed to said arbour, a pawl locking the ratchet wheel in one direction, a dog locking said wheel in the opposite direction, a tripping finger attached to said dog, and a detent in the path of said tripping finger and dog, as set forth. 3rd. In combination, with the paper supporting table, paper holder, reciprocating bar, arbour on said bar at right angles thereto, rollers and a ratchet wheel fixed to said arbour, a pawl locking the ratchet wheel in one direction, a dog locking said wheel temporarily in the opposite direction, a tripping finger attached to said dog, and a detent supported adjustably in the path of said finger and dog, substantially as and for the purpose set forth. 4th. In combination, with the paper supporting table, a paper holding clamp on the rear portion of said table, a vertically movable finger resting upon the front portion of the paper, a reciprocating bar over the paper, a yoke attached at right angles to the front end of said bar, an arbour journalled to said yoke, rollers and a ratchet wheel fixed to said arbour, a pawl on the yoke, locking the ratchet wheel in one direction, a dog locking the said wheel in the opposite direction, a tripping finger attached to said dog, a detent in the path of the tripping finger, and feed rollers in front of the paper holding table, as set forth. 5th. The combination of a vertically movable paper supporting table, vertical racks H, attached to said table, the shaft *r*, pinions r^2, and ratchet wheel *j*, fixed to said shaft, the pulley K, mounted loosely on said shaft and partly inclosing the ratchet wheel, the pin K^1, projecting from the side of said pulley, the arm *m*, having its free end slotted and receiving through it the aforesaid pin, the oscillatory arm *l*, also loosely connected to the aforesaid shaft, the pawl h^1, on said arm, the dog *n*, on the frame, and the oscillatory gear *a*, connected to the arm *l*, by rod *f*, substantially as described and shown. 6th. In combination, with the paper supporting table B, and oscillatory gear *t*, the shaft m^3, pinions m^4 and m^5, fixed to said shaft, the rack *u*, transmitting motion from the aforesaid gear to the pinion m^4, the sleeve m^2, supported by said shaft and provided with the fixtures m^6, a sleeve on said fixture at right angles to the shaft, the rack x^2, sliding in the latter sleeve and engaging the pinion m^5, the feed rolls y^6 and y^7, connected to said rack, a pawl locking said feed rolls in one direction, and a dog temporarily locking said rolls in the opposite direction, substantially as set forth. 7th. In combination, with the paper supporting table B, the oscillatory shaft m^3, pinion m^5, fixed to said shaft, the sleeve m^2, mounted loosely on the shaft and formed with the fixture m^6, and with sleeves on top and bottom of said fixture and at right angles to the shaft, the bar *x*, secured longitudinally adjustable in the upper sleeve and provided with the detent x^1, on its free end, the rack x^2, sliding in the lower sleeve and meshing with the pinion m^5, feed rollers on the front end of the

said rack, a pawl locking the feed rolls in one direction, and a dog locking said rolls temporarily in the opposite direction, as set forth.

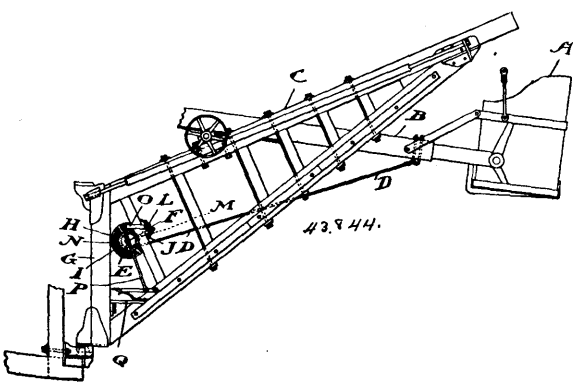
No. 43,843. Inhaler. (*Inhalateur.*)



William W. Houlder, Southall, Middlesex, England, 5th August, 1893; 6 years.

Claim.—In pocket inhalers a chamber *d* with or without disinfectant having perforations for the admission of external air in any suitable part thereof two tubes *e* and e^1 inserted therein and connected to each other by means of the tube e^1, flap valves *i* and i^1 arranged in the said tubes, the said tube e^2 being provided with outlets *h* for the outlet of the vitiated air, a mouthpiece *l* connected to the tube *e* by means of a flexible tube *f*, substantially as described.

No. 43,844. Dredge. (*Dragueur.*)



James Canan, Owen Sound, Ontario, Canada, 5th August, 1893; 6 years.

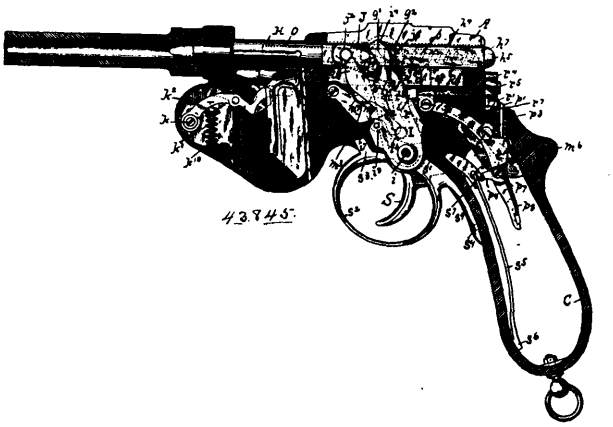
Claim.—1st. The combination with a dredge dipper, of a cable connected at one end to the arm of the dipper and at its other end to mechanism near the crane post by which the said cable is automatically kept taut, substantially as and for the purpose specified. 2nd. The combination with a dredge dipper, of a cable connected at one end to the arm of the dipper and at its other end to a drum actuated by a spring, substantially as and for the purpose specified. 3rd. In a dredge, a cable connected at one end to the arm of the dipper and at its other end to a spring actuated drum, in connection with a pivoted pawl engaging with a ratchet wheel arranged to lock the drum and of a friction brake arranged to control the said drum, substantially as and for the purpose specified.

No. 43,845. Magazine for Fire Arms.

(*Magasin pour armes à feu.*)

The firm of Gebruder Schonberger, assignees of Josef Laumann, all of Vienna, Austrian Empire, 7th August, 1893; 6 years.

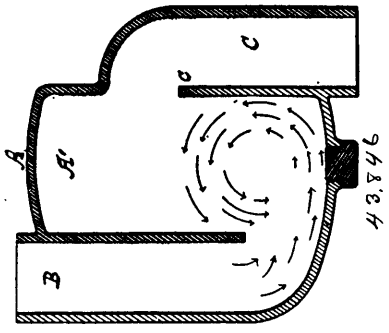
Claim.—1st. In a cartridge magazine, the combination with the sides thereof of an open back, strengthing ribs, and vertical slots adapted to impart resilience to the said sides, as set forth. 2nd. A cartridge feeder consisting of a lever pivoted near the front of the magazine chamber, an actuating spring operating between the bottom of the magazine chamber and the undersides of the lever near the pivot of the latter, the top or operative edge of the rear half of the lever being arch shaped or convex, and an S-shaped lever having its fulcrum in the said lever, the lighter half of such S-shaped lever adapted to engage with the adjacent surface of the magazine chamber thereby raising the heavier end and causing it to engage under the bullet of the bottom cartridges, as set forth. 3rd. The combination with a cartridge magazine and a magazine chamber, of a detent lever having its fulcrum upon the inside front face of the said chamber, a detent upon the top of the said lever adapted in respect of



position to be engaged and pushed to one side by a stop on the front of the cartridge magazine, a returning spring adapted to yield when the detent is so pushed to one side, and a push piece connected to the bottom end of the said lever, and adapted in virtue of its projection through the side of the arm to be pressed inwards for the purpose of disengaging the said detent from the said stop, as set forth. 4th. The combination with the breech bolt and its lever, of a locking bar pivoted on the bolt, a stud carried by the firing lever and adapted by contact with the said locking bar to counteract the normal action of the spring of the said lever and to disengage a detent carried by the said firing lever from the firing pin as the continued motion of the breech bolt lever forces the said locking bar down into its notch in the standing breech, as set forth. 5th. The combination of main spring, lever interposed between the main spring and the breech bolt lever and depressed by the said spring, a convex contour upon the lower edge of the said lever extending from its nose backwards, a concave upon one side of the breech bolt lever adapted to receive the said convex contour in the unlocked position, a shoulder on the same side of the breech bolt lever as the said concave, and notched in the lower edge of the said lever adapted in respect of position to embrace the said shoulder in the firing position, as set forth. 6th. The combination of trigger V-shaped main spring within the chamber of the breech mechanism and in front of the breech bolt lever, a lever interposed between the said main spring and breech bolt lever, a convex contour upon the lower edge of the said intermediate lever extending from its nose backwards, a concave upon one side of the said breech bolt lever adapted to receive the said concave contour in the unlocked position, a shoulder on the same side of the breech bolt lever as the said concave, and a notch in the lower edge of the said intermediate lever, adapted in respect of position to embrace the said shoulder in the firing position, as set forth. 7th. The combination of a spring bar upon the breech bolt and normally locking a stud upon the firing pin, with an incline upon the locking bar, adapted at the moment the breech bolt is pulled into firing position to disengage th e said spring bar from the said stud upon the firing pin, as set forth. 8th. The combination of firing lever, a pin projecting up from the rear end of said lever through the stock of the arm, a lever having its fulcrum upon the rear end of the arm, and adapted by its motion thereabout to lock or release the firing lever, and a spiral returning spring about the said pin, as set forth. 9th. The combination of lever having its fulcrum on the rear end of the arm, locking bolt fast thereto, arc shaped slot in the end plate of the arm, and a projection from the firing lever within reach of the operative nose of the said lever, as set forth. 10th. The combination with the side plates, the opposite side edges of which are grooved, of a detachable cover plate adapted, by being chamfered along its side edges, to slide in the grooved edges of the said side plates, to be held in place by the screw, which provides the fulcrum of the lever I, by having a rearward extension concaved on its inner edge, to completely close up the rear part of the chamber of the breech mechanism, as set forth. 11th. The combination of breech bolt lever pivoted upon a fulcrum at or near the bottom of the action body, and connected by its top end with the breech bolt, an external finger lever fast to the said lever, and moving with it about the same fulcrum, a convexity upon the side of the breech bolt lever, a main spring lever having its fulcrum near the front of the action body, and at a higher level than that of the levers above mentioned, and a main spring adapted to always keep the nose of the main spring lever pulling the said convexity forwards. 12th. The combination, of breech bolt lever pivoted upon a fulcrum at or near the bottom of the action body, and connected by its top end with the breech bolt, and external finger lever fast to the said lever, and moving with it about the same fulcrum, a convexity upon the side of the breech bolt lever, a main spring lever, having its fulcrum near the front of the action body, and at a higher level than that of the levers above mentioned,

a main spring adapted to always keep the nose of the main spring lever pulling the said convexity forwards and an adjusting screw adapted by being screwed to and fro through the frame of the stock to exert a greater or less pressure upon the main spring at a point between its base and its operative nose. 13th. The combination, of breech bolt, locking bar pivoted upon the side thereof, notch in the bottom of the standing breech into which the said locking bar engages when the breech bolt is cocked, a firing pin axially inside the breech bolt, and having a lateral enlargement thereon, a slot in the side of the breech bolt, through which the said enlargement projects, and along which it moves to and fro, the said enlargement being adapted when firing pin is fired, to stand immediately over and in contact with the said locking bar, as set forth. 14th. The combination, of breech bolt locking bar pivoted upon the side thereon, notch in the bottom of the standing breech, into which the said locking bar engages when the breech bolt is cocked, a closing block for the breech bolt, having a longitudinal bore adapted to receive the spring of the firing pin, as it is being compressed, a firing pin axially inside the breech bolt and having a lateral enlargement thereon, a slot in the side of the breech bolt through which the said enlargement projects, and along which it moves to and fro, the said enlargement being adapted when the firing pin is fired, to stand immediately over and in contact with the said locking bar, as set forth. 15th. The combination, with the firing lever and the firing pin detent thereon, of a contact piece pivoted thereon, a trigger adapted to disengage the firing pin detent and a spring adapted by normal pressure on the said contact piece or upon the said lever to keep the detent always standing in the path of the respective stud on the firing pin, as set forth. 16th. The combination, with an external finger lever and a breach bolt lever fast to each other and adapted thereby to move necessarily together about a common axis, of a depressing piece pivoted upon the former, a rearward extension of such depressing piece adapted by a rearward motion of the said lever to depress an extension of the safety mechanism lever and a spring device adapted to prevent the depressing piece reaching the extension of the safety mechanism lever, as set forth. 17th. The combination, with the trigger and firing lever, of firing pin detent on the latter, pivoted contact piece on the firing lever standing in the path of an inner arm of the trigger, adapted to communicate the motion of the said arm to the said lever and to yield before the return motion of the said arm, a returning spring to return the said contact piece, and a returning spring adapted to return the firing lever and the firing pin detent. 18th. The combination of the internal lever connected to the breech bolt, the external finger lever, the tubular cross piece by which they are fast to each other, and the fixed fulcrum common to them both, as set forth.

No. 43,846. Waste Trap. (*Trappe de décharge.*)



Charles H. Muckenhirn, Detroit, Michigan, U.S.A., 7th August, 1893; 6 years.

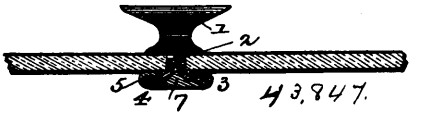
Claim.—1st. A trap, composed of the body A, and inlet and outlet ducts B, C, said body and ducts being substantially circular in cross section, the ducts B and C, being of equal diameters and the diameter of the body being twice the diameter of the inlet or outlet duct, and with space between the levels *b* and *e*, equal to the diameter of the inlet or outlet duct, whereby a self-scouring trap is produced, substantially as described. 2nd. A trap in which the inlet and outlet ducts and body of the trap are substantially circular in cross section, the diameter of the body being twice that of the inlet duct and the inlet and outlet ducts being of equal diameters, with a space between the levels *b* and *c*, equal to the diameter of the inlet duct, and the top of the body projected with the same diametrical dimensions to a level above the point c^1, equal to the diameter of the inlet duct, substantially as and for the purposes described.

No. 43,847. Button. (*Bouton.*)

Hershel M. Nester, Hendricks, West Virginia, U.S.A., 7th August, 1893; 6 years.

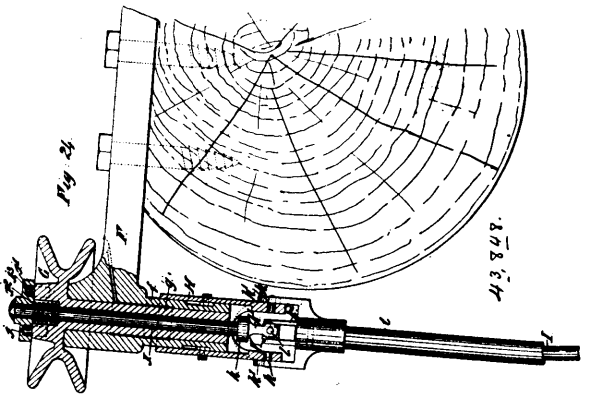
Claim.—1st. A button comprising a head with a tubular tapering shank, and a securing disc, having a central recess, an over-lapping flange and a cone or wedge, substantially as described. 2nd. A button comprising a head with a tubular split shank, and a securing disc comprising two connected plates, and a cone or wedge on the lower plate projecting upwardly through a recess in the upper plate, said recess being of a size to receive said shank, substantially as

Fig. 1.



described. 3rd. A securing disc for buttons consisting of two connected plates, one of which is formed with a cone, while the other is provided with an aperture, and a tongue, said plates being folded over upon each other, and the tongue folded over the edge of the opposite plate, substantially as described.

No. 43,848. Driving Gear. (*Roues de commande.*)



Henry Bland, New South Wales, Australia, 7th August, 1893; 6 years.

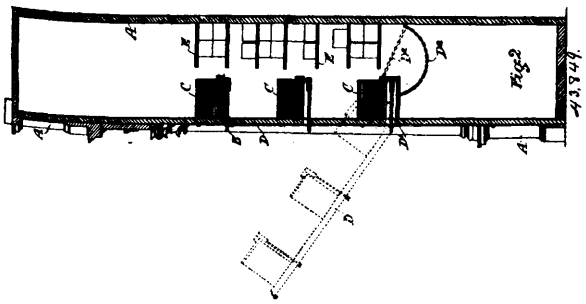
Claim.—1st. In gear for driving small machines such as those used for sheep shearing purposes, a spindle such as J, normally connected with a driving pulley such as G, or other rotating part of said gear in combination with a spring such as j^2, adapted to raise said spindle out of gear, substantially as and for the purpose herein described and illustrated. 2nd. In gear for driving small machines such as those used for sheep shearing purposes, the combination with a universal coupling such as K of a sheathing surrounding the spindle to which motion is to be imparted and having hooks such as h^1, whereby it can be connected to a sleeve such as H, supported upon the overhead bracket, the whole being constructed and arranged substantially as and for the purposes herein described and illustrated. 3rd. In gear for driving small machines, such as those used for sheep shearing purposes, a universal coupling consisting of two forked pieces, one having a square block such as L pivoted between its ends, and the other having two inward projections such as l^2, adapted to engage within recesses such as l^1, formed in the sides of said block, substantially as and for the purposes herein described and explained, and illustrated. 4th. In gear for driving small machines, such as those used for sheep shearing purposes, a counterbalanced lever (such as N), having its forward end formed with a loop (such as *n*), through which the casing and flexible part of the shaft of the machine can pass, substantially as and for the purposes herein described and explained. 5th. In gear for driving small machines, such as those used for sheep shearing purposes, a composite flexible shaft, consisting of a core of catgut bound tightly round with fine steel or other wire, substantially as and for the purposes herein described and explained and illustrated. 6th. In gear for driving small machines, such as those used for sheep shearing purposes, a universal joint having the two halves of its casing pivotally connected together so that they can rotate upon each other in a plane at an angle to the driving shaft, substantially as and for the purpose herein described and explained and illustrated. 7th. In gear for driving small machines, such as those used for sheep shearing purposes, a universal joint consisting of a double crown wheel (such as C) in gear with two pinions mounted in bearings within the two halves (c^5, c^6) of a casing enclosing said wheels and connected together by the bolt upon which said double crown wheel is mounted, substantially as and for the purposes herein described and explained and illustrated.

No. 43,849. Method of and Apparatus for Advertising. (*Méthode et appareil pour annoncer.*)

Thomas Obbinson, Mentone, Victoria, Australia, 7th August, 1893; 6 years.

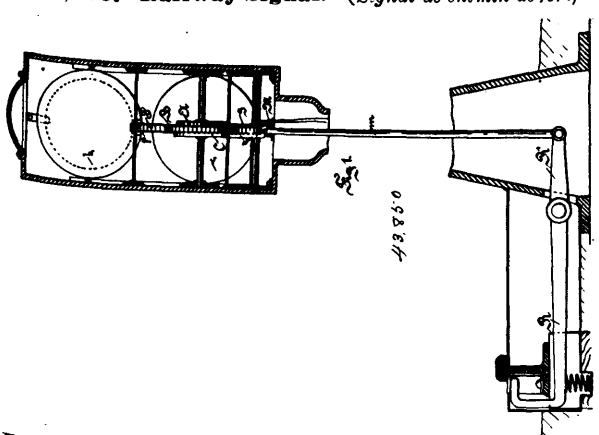
Claim.—1st. The method of distributing advertisements, consisting of putting them on cards containing useful popular information

and holding said cards in machines having labelled receptacles from which they may be withdrawn one by one by pulling a knob, sub-



stantially as set forth. 2nd. In advertising appliances, a machine consisting of an upright pedestal box as A, on which is mounted any number of pull knobs as B, the latter being so arranged that on the operator pulling one of the knobs mechanism is brought into operation which projects a card containing some required popular information and advertisements, substantially as described and explained and as illustrated in the accompanying drawings. 3rd. In advertising appliances, a hinged frame, as D, in which is placed a number of chambers or boxes, as C, containing cards and mechanism for projecting such cards, substantially as described and illustrated. 4th. In advertising appliances, the combination of a sliding block, as H, on which is mounted a thumb piece, as H^2, with a chamber or box, as C, and slide plates or rails, as L, substantially as explained and as illustrated on the accompanying drawings. 5th. In advertising appliances, the combination, with an upright pedestal box A, spaces F, on the front thereof for receiving printed or painted announcements, hinged frames D, with tension chains D^2, a series of boxes C, secured to the back of said frames each having an open bottom with side ledges L, and a recess I, at the back and a transverse slot in the front, a sliding block H, under each box running in the guides H^1, and provided at the back and top with a thumb piece H^2, extending with its upper edge between the ledges L, a rod B^1, having a compressed spiral spring coiled upon it and provided with a knob B, at the front end projecting through the front, substantially as set forth.

No. 43,850. Railway Signal. (*Signal de chemin de fer.*)



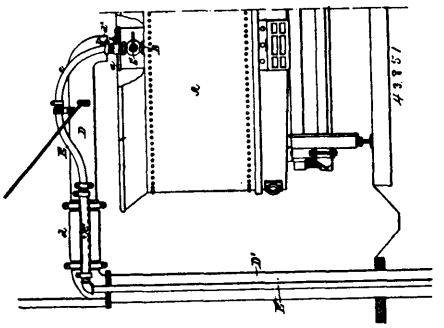
Edward A. Winterhalder, Kappel, Baden, German Empire, 7th August, 1893; 6 years.

Claim.—1st. In apparatus for block signalling on single line railways, two symetrically arranged electrically operated mechanisms driving two endless chains intermittently for the purpose of exhibiting coloured discs, in combination with a mechanical device operated by the wheels of a passing train to remove the discs out of sight, constructed and arranged substantially as hereinbefore described. 2nd. In apparatus for block signalling on single line railways, an electrically operated mechanism at the terminal or end stations, driving an endless chain for the purpose of raising a coloured disc at the station and at each of the other stations, in combination, with a key and circuits, for substituting one disc for another, an audible signal, constructed and arranged substantially as hereinbefore described.

No. 43,851. Steam or Air Connection for Water Elevators. (*Connexion à vapeur ou air pour élevateur à eau.*)

The Automatic Water Tank Company, Camden, New Jersey, assignee of Herman R. Winklemann, Philadelphia, Pennsylvania, U.S.A., 7th August, 1893; 6 years.

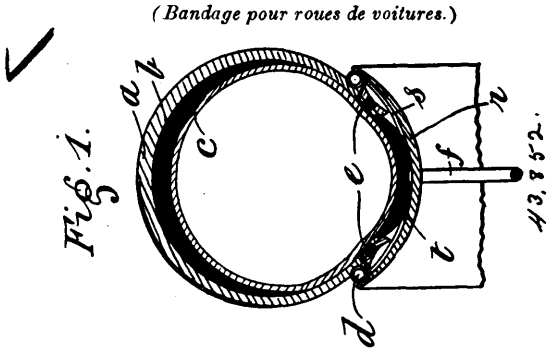
Claim.—1st. The combination of the fluid actuated water elevator, the water supply pipe extending from the elevator to the tender, with a fluid supply pipe for the elevator carried by said water supply pipe, substantially as described. 2nd. The combination of the water



elevator, the water supply pipe, the goose neck, a steam supply pipe carried by said goose neck and extending to the elevator, with a tender, a water inlet opening, a steam supply pipe carried by the tender, and having a coupling adapted to a coupling carried by the elevator steam pipe, and a valve to regulate the flow of steam through the pipes, substantially as described. 3rd. The combination of the goose neck of a water elevator, with a steam pipe attached to said goose neck and mounted on the top thereof, with a flexible section attached to said pipe, and having a coupling adapted to couple with a mate on either side of the goose neck, substantially as specified.

No. 43,852. Tire for Vehicle Wheels.

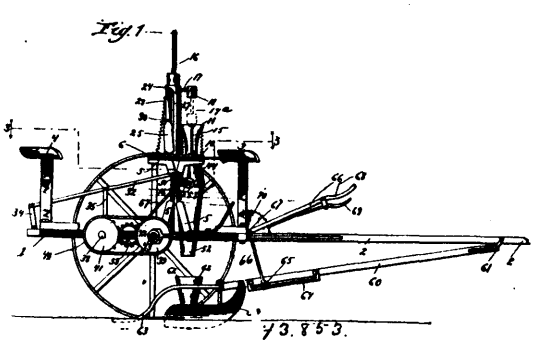
(*Bandage pour roues de voitures.*)



Richard R. Gubbins, Belvedere, Kent, and George Harcourt, London, all in England, 7th August, 1893; 6 years.

Claim.—1st. The combination, in a vehicle wheel, of a hook edged tire with metal hooks *e*, with rings or flanges on a wheel rim, all substantially as set forth. 2nd. The solid rings *d*, *d*, secured by the clips *s*, substantially as shown for the purpose specified. 3rd. The combination, in a vehicle wheel, of the hook edged tire *a*, the rings *d*, *d*, and clips *s*, all substantially as set forth. 4th. In a pneumatic vehicle wheel, the removable protecting strip *b*, of unvulcanized india rubber, substantially as shown for the purposes specified. 5th. The construction of a pneumatic tire, formed and fastened upon the wheel, substantially as described and shown in the above specification.

No. 43,853. Potato Planter. (*Semoir à patates.*)



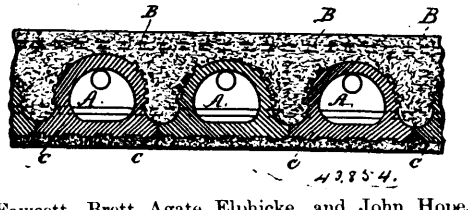
Joseph Phillips Davenport, Downer's Grove, Illinois, U.S.A., 7th August, 1893; 6 years.

Claim.—1st. In a potato planter, the combination of a number of hoppers, cutting mechanism and a set of chutes or spouts common to all of said hoppers for receiving the pieces of potato therefrom,

substantially as set forth. 2nd. In a potato planter, the combination of a number of hoppers, cutting mechanism, a set of chutes or spouts common to all of said hoppers for receiving the portions of potato therefrom, and means for alternately bringing said hoppers and set of spouts into coincidence, substantially as set forth. 3rd. In a potato planter, the combination of a number of movable hoppers, cutting mechanism, a set of spouts common to all of said hoppers for receiving the pieces of potato therefrom, and means for alternately moving said hoppers over said spouts, substantially as set forth. 4th. In a potato planter, the combination of a number of movable hoppers, cutting mechanism, a set of spouts common to all of said hoppers for receiving the pieces of potato therefrom, means for alternately moving said hoppers over said spouts, and means for successively opening said spouts to permit the pieces of potato therein to discharge, substantially as set forth. 5th. In a potato planter, the combination of a number of movable hoppers, cutting mechanism, a set of spouts common to all of said hoppers for receiving the pieces of potato therefrom, means for alternately moving said hoppers over said spouts, and a dropping chute common to all of said spouts, arranged thereunder, substantially as set forth. 6th. In a potato planter, the combination of a number of movable hoppers, cutting mechanism, a set of spouts common to all of said hoppers for receiving the pieces of potato therefrom, means for alternately moving said hoppers over said spouts, and a rotary valve arranged under said spouts, substantially as set forth. 7th. In a potato planter, the combination of a number of movable hoppers, cutting mechanism, a set of spouts common to all of said hoppers for receiving the pieces of potato therefrom, means for alternately moving said hoppers over said spouts, a valve arranged under said spouts, and a common dropping or discharge chute arranged under all of said spouts and said valve, substantially as set forth. 8th. In a potato planter, the combination of a number of movable hoppers, cutting mechanism, a set of spouts common to all of said hoppers, for receiving the pieces of potato therefrom, means for alternately moving said hoppers over said set of spouts, a rotary valve arranged to close some of said spouts, and means for imparting an intermittent rotation to said valve, substantially as set forth. 9th. In a potato planter, the combination of a number of movable hoppers, cutting mechanism, a set of fixed spouts common to all of said hoppers, a common discharge or dropping chute arranged under said set of spouts, and means for alternately moving said hoppers over said set of spouts, substantially as set forth. 10th. In a potato planter, the combination of a number of movable hoppers, cutting mechanism and a set of fixed chutes or spouts common to all of said hoppers for receiving the pieces of potato therefrom, each of said hoppers being adapted to coincide with all of said chutes at once, substantially as set forth. 11th. In a potato planter, the combination of a number of hoppers, cutting mechanism and a set of fixed spouts located under said cutting mechanism and adapted to receive and retain the sections of potato preparatory to dropping, substantially as set forth. 12th. In a potato planter, the combination of a number of movable hoppers, cutting mechanism adapted to divide the potato into a number of sections, a set of fixed spouts common to all of said hoppers, arranged under said cutting mechanism and corresponding in number to the number of sections into which the cutting mechanism is adapted to divide the potato, and means for discharging the potato from said spouts, substantially as set forth. 13th. In a potato planter, the combination of a number of movable hoppers, cutting mechanism adapted to divide the potato into a number of sections, a set of fixed spouts common to all of said hoppers arranged under said cutting mechanism and corresponding in number to the number of sections into which the cutting mechanism is adapted to divide the potato, a rotary valve common to all of said spouts and arranged thereunder, and means for actuating said valve to open said spouts, substantially as set forth. 14th. In a potato planter, the combination of a number of movable hoppers, cutting mechanism adapted to divide the potato into a number of sections, a set of fixed spouts common to all of said hoppers and arranged under said cutting mechanism, each of said hoppers being adapted to coincide with all of said spouts at once, means for opening and closing the lower ends of said spouts, and a dropping funnel arranged under the lower end of said spouts, substantially as set forth. 15th. In a potato planter, the combination of two hoppers, an oscillatory support for said hoppers, the potato knives, a pivotal incline carried by said support, a plunger having a portion adapted to engage with said incline for oscillating said support, and a set of chutes or spouts common to both hoppers, substantially as set forth. 16th. In a potato planter, the combination of two hoppers, an oscillatory support for said hoppers, the potato knives, a pivoted incline carried by said support, a plunger having a portion adapted to engage with said incline for oscillating said support, a spring for holding said incline tilted to either side of its pivot, and a set of chutes or spouts common to both hoppers, substantially as set forth. 17th. In a potato planter, the combination of two hoppers, an oscillatory support for said hoppers, potato knives, a spring actuated pivoted incline carried by said support, a longitudinally reciprocating plunger stem, and an arm or projection on such stem adapted to engage said incline alternately on opposite sides, substantially as set forth. 18th. In a potato planter, the combination of two hoppers, the potato knives, a slotted post, an oscillatory support for said hoppers sleeved upon said post, the plunger stem passing through said post, an arm carried by said stem and arranged to play in the slot in said post, a spring actuated switch carried by said oscillatory support and arranged to be engaged by said arm, and means for reciprocating said stem, substantially as set forth. 19th. In a potato planter, the combination of a slotted post 7, two hoppers, the potato knives, an oscillatory support for said hoppers sleeved upon said post, a pivotal switch carried by said support and arranged lengthwise of said post, the plunger stem passing through said post and having an arm or projection arranged in said slot and adapted to engage said switch, and a set of spouts or chutes common to both hoppers, substantially as set forth. 20th. In a potato planter, the combination of the slotted post 7, a slotted sleeve on said post and having a base or foot, a spring actuated switch 25 carried by said sleeve, and a plunger stem passing through said post and having an arm or projection extending through the slots in said post and sleeve, and arranged to engage said switch for oscillating the said hoppers, substantially as set forth. 21st. In a potato planter, the combination with a pair of oscillatory hoppers and cutting mechanism, of a set of chutes or spouts common to both hoppers, a rotary valve arranged to close all but one of said chutes or spouts, a shaft geared to said valve for rotating it, and a pawl or ratchet for rotating said shaft, substantially as set forth. 22nd. In a potato planter, the combination with a reciprocating plunger, and a pair of oscillatory hoppers and potato knives, of a set of fixed spouts or chutes common to both hoppers, a valve having an opening for discharging said spouts or chutes successively, a gear wheel for reciprocating said plunger and oscillating said hoppers and a pinion for rotating said valve, the diameter of said pinion being equal to the diameter of said gear, divided by the number of said spouts or chutes, substantially as set forth. 23rd. In a potato planter, the combination with the plunger stem, a pair of oscillatory hoppers and cutting mechanism, of a set of fixed spouts or chutes, common to both of said hoppers, a rotating valve, having an opening arranged to close said chutes or spouts, the gear wheel 37, having a wrist pin, the lever 32, connected to said wrist pin and plunger stem, the pinion 58, meshing with the wheel 37, connecting rod operated by said pinion, and a pawl and ratchet for rotating said valve, operated by said connecting rod, substantially as set forth. 24th. In a potato planter, the combination, of a hollow slotted post 7, an oscillatory hopper support, sleeved on said post, a switch carried by said support, a two-part plunger stem passing through said post, the nut 20, arranged in said post and having the two parts of said plunger stem threaded therein, and the plunger arm 17, passing through the slots of said post, and through said nut between the ends of the plunger stem, substantially as set forth. 25th. In a potato planter, the combination, of the tongue or draught device, a plough having its beam hinged to said tongue and being provided with a longitudinal slot, and a bell crank lever, having a stud on one arm engaged in said slot, substantially as set forth. 26th. In a potato planter, the combination of the tongue or draft device, a plough having its beam hinged to said tongue and being provided with a longitudinal slot, a pivoted bell crank lever having a stud on one arm engaging in said slot, the ratcher 70, and a dog on the other arm of said lever, engaging with said ratchet, substantially as set forth.

No. 43,854. Fireproof Floor, Ceilings and Roof.

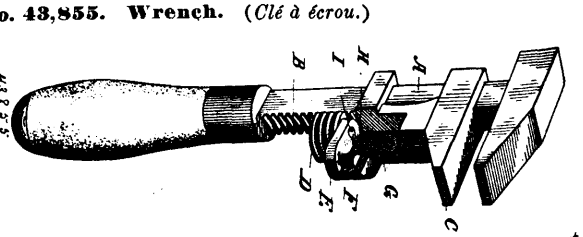
(*Plancher, plafond et toiture à l'épreune du feu.*)



Mark Fawcett, Brett Agate Elphicke, and John Hope, Westminster, London, England, 7th August, 1893; 6 years.

Claim.—The improved hollow fire proof or fire resisting tubes fixed diagonally and with split tubes at the ends, as described, and having sides or lateral projections or flanges and longitudinal grooves, ribs or flutings, substantially as hereinbefore described and shown.

No. 43,855. Wrench. (*Clé à écrou.*)

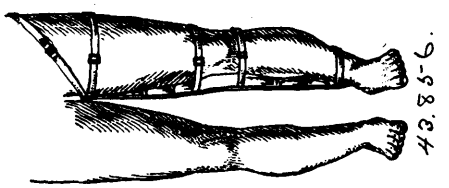


Edwin Sylvester Pratt, Parry Sound, Ontario, Canada, 7th August, 1893; 6 years.

Claim.—1st. In a monkey wrench, in which the loose head is adjustable upon its shank, the combination of a screw fitted into

the rack on the shank and so carried that it may be moved into and out of gear with the rack, substantially as and for the purpose specified. 2nd. In a monkey wrench, in which the loose head is adjustable upon its shank, the combination of a screw fitted into the rack on the shank, and so carried that it may be moved into and out of gear with the rack, and of a spring bolt for holding the said screw in contact with the rack, substantially as and for the purpose specified.

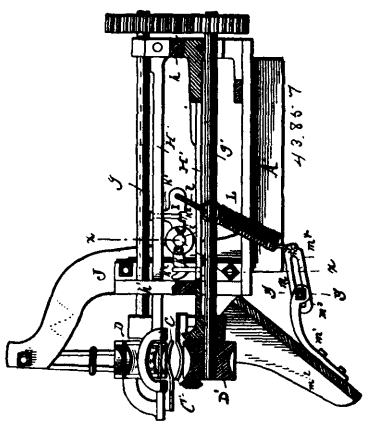
No. 43,856. Instrument for Straightening Misshaped Legs. (*Appareil pour redresser les jambes difformes.*)



Heinrich Bayer, Hamburg, Germany, 7th August, 1893; 6 years.

Claim.—The combination, with a waist band or belt, of straps attached to the same, and cushions suspended from said straps and provided with fastening straps, substantially as set forth.

No. 43,857. Machine for Cutting Green Corn from the Cob. (*Machine pour épier le blé d'inde.*)



The Sprague Manufacturing Company, assignee of Welcome Sprague, all of Farnham, New York, U.S.A., 7th August, 1893; 6 years.

Claim.—1st. The combination with the bed or frame of the machine, a set of self adjusting feed wheels and a set of cutters, of relatively movable supports carrying the feed wheels, and an equalizing device whereby the movement of either support is imparted to the other support, substantially as set forth. 2nd. The combination with the bed or frame, a set of self adjusting feed wheels and a set of cutters, of relatively movable supports carrying the feed wheels, and an equalizing lever connecting said supports, whereby the movement of either of the supports is transmitted to the other, substantially as set forth. 3rd. The combination with the bed or frame and supporting arms attached to the bed and capable of moving toward and from each other, a set of feed wheels, and a set of primary cutters mounted upon said supporting arms, an equalizing device whereby the movement of either of said arms is imparted to the other arm, and a secondary set of cutters arranged beyond the first set and receiving the ear of corn from the latter, substantially as set forth. 4th. The combination with the bed or frame of the machine, a set of feed wheels and a set of cutters, of relatively movable supporting arms guided on the bed or frame and carrying the feed wheels, an equalizing lever connecting said arms, and a spring which resists the spreading movement of the arms, substantially as set forth. 5th. The combination with the bed or frame of the machine, a set of feed wheels and a set of cutters, of supporting arms pivoted to the bed or frame and carrying said feed wheel and cutters, an equalizing lever connecting said pivoted arms, and a spring connected with said lever and resisting the spreading movement of the pivoted arm, substantially as set forth. 6th. The combination with the bed or frame of the machine, a set of feed wheels and a set of cutters, of arms pivoted to the bed or frame and supporting said feed wheels, an equalizing lever connecting said supporting arms, a resisting spring connected at one end to said lever, and an adjustable link connecting the opposite end of the spring with a stationary part of the machine, substantially as set forth. 7th. The combination with the bed or frame of the machine, a set of feed wheels and a set of cutters, of vertically swinging supporting arms pivoted to the bed or frame and carrying the feed wheels and cutters, an equalizing lever pivoted between its ends to the bed or frame, links connecting said supporting arms with the respective arms of the lever and a resisting spring connected with one arm of said lever, substantially as set forth.

No. 43,858. Saw Handle. (*Manche de scie.*)

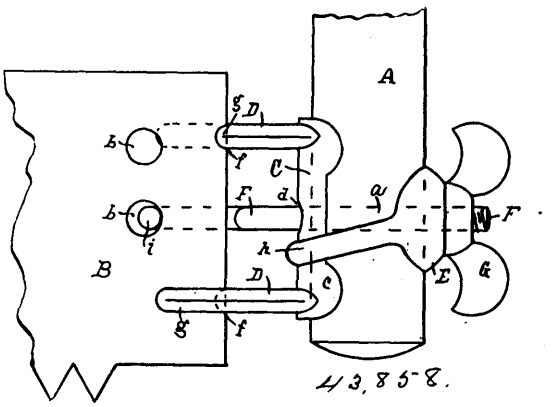


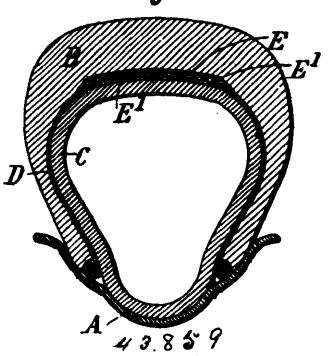
Fig. 1.

Robert Samuel Carr, assignee of John Neimeyer, both of Hamilton, Ohio, U.S.A., 8th August, 1893; 6 years.

Claim.—1st. In combination, a support adapted to intervene between a saw handle and the end of a saw, a washer and a ring integral therewith and adapted to encircle a saw handle and to detachably engage with said support. 2nd. In combination, a mechanism adapted to intervene between a saw handle and the end of a saw, a washer, and means adapted to encircle the handle and to detachably engage said mechanism with said washer. 3rd. In combination, a base plate, arms projecting therefrom, a groove in the end of said arms, and a lip on each of said arms, extending beyond one side of said groove therein, said lips on the respective arms being adapted to rest against the opposite sides of a saw. 4th. In combination, a curved base plate, parallel arms projecting vertically from the convex face thereof, a groove in the end of each of said arms, extending beyond one side of said groove on opposite sides of said line, respectively. 5th. In combination, a cylindrical handle, an intervening mechanism adapted to engage with said handle and the end of a saw, a washer, a ring adapted to encircle said handle and to detachably engage said intervening mechanism and said washer together, and a bolt adapted to secure said parts together and to the end of a saw. 6th. In combination, a mechanism adapted to intervene between a saw handle and the end of a saw, integral parallel lips thereon, adapted to extend along and rest against the respective sides of the saw, a washer, and a ring adapted to encircle the saw handle and to detachably engage said washer with said mechanism.

No. 43,859. Pneumatic Tyre. (*Bandage pneumatique.*)

Fig. 1.

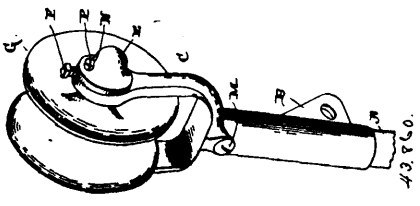


John Boyd Dunlop, sr., and John Boyd, Dunlop, jr., both of Blackrock, Dublin, Ireland, U.S.A., 8th August, 1893; 6 years.

Claim.—1st. The combination, with a pneumatic tyre having a straight woven jacket, of a strengthening band made of threads extending circumferentially round the tyre, substantially as and for the purpose specified. 2nd. The combination, with a pneumatic tyre having a straight woven jacket, of a strengthening band made up of strong threads extending circumferentially round the tyre and kept in position by weaker cross threads, or threads wider apart, substantially as and for the purpose specified. 3rd. The combination, with a pneumatic tyre having a straight woven jacket, of a

strengthening band made up of threads extending circumferentially round the tyre stronger or closer and stronger than the threads composing the said jacket, substantially as and for the purpose specified. 4th. In a pneumatic tyre a straight woven jacket with the threads at the tread and extending circumferentially round the tyre stronger or closer or closer and stronger than the cross threads of said jacket, substantially as and for the purpose specified. 5th. In a pneumatic tyre a straight woven jacket with the threads at the tread and extending circumferentially round the tyre, stronger or closer and stronger than the circumferential threads at the sides of the tyre and the cross threads of said jacket, substantially as and for the purpose specified. 6th. The combination, with a pneumatic tyre having a straight woven jacket, the longitudinal threads of which are weaker than the cross threads thereof, of a strong woven or cemented band extending circumferentially round the tread of the tyre, substantially as and for the purpose specified.

No. 43,860. Trolley. (*Trollée.*)

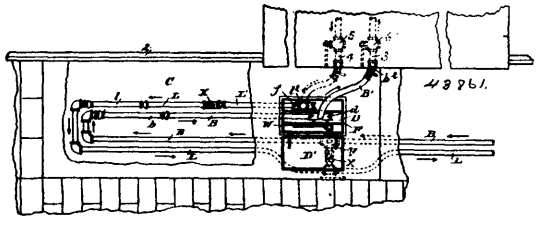


John Arthur Stewart and James Sidney Baker assignees of Georg W. Hooper, all of Rochester, New York, U.S.A., 8th August, 1893; 6 years.

Claim.—1st. A trolley comprising a yoke, bushings supported by the yoke, a trolley wheel having an axle revolving within the bushings, and springs within the bushings at opposite end of the axle, substantially as described. 2nd. A trolley comprising a yoke, bushings supported by the yoke, a trolley wheel having an axle revolving within said bushings, electrical contacts within the bushings at the ends of the axle, and springs for holding the electrical contacts in engagement with the ends of the axle, substantially as specified. 3rd. A trolley comprising a yoke, having hollow arms communicating at their lower ends to form a continuous chamber from one arm to the other, the upper ends of the arms having socket supporting openings, bushings supported within said openings, a wheel having an axle revolving in said bushing, and registering opening in the socket and in the bushings, substantially as described. 4th. A trolley comprising a yoke, bushings havings closed outer ends supported by the yoke, a trolley wheel having an axle revolving within said bushings, electrical contacts within the bushings at the ends of the axle, and springs within the bushings engaging the contacts and the closed end of the bushings, substantially as specified.

No. 43,861. Apparatus for Supplying Railway Storage Heaters with Hot Water. (*Appareil pour fournir l'eau chaude aux calorifères de chemins de fer.*)

Fig. 1.



The Consolidated Car Heating Company, Albany, assignee of James F. McElroy, New York, all of the State of New York, U.S.A., 8th August, 1893; 6 years.

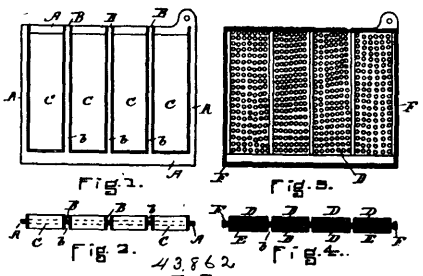
Claim.—1st. In an apparatus for charging storage heaters with hot water, the combination of a boiler, a charging pipe, a return pipe, a return tank, said charging pipe connected with the lower part of said boiler, said return pipe connected with said return tank, substantially as described and for the purpose set forth. 2nd. In an apparatus for charging storage heaters with hot water, the combination of a boiler, a charging pipe communicating with said boiler near the lower portion thereof, a hose connected with said charging pipe, a vault beneath the surface of the earth penetrated by said charging pipe, with a return pipe, substantially as described and for the purpose set forth. 3rd. In an apparatus for charging storage heaters with hot water, a charging pipe, a suitable vessel containing hot water under pressure, said charging pipe connected with said vessel, a vault placed beneath the surface of the street, said charging pipe entering said vault and provided with a suitably hinged joint, allowing the charging pipe to pass upward through an opening in the vault into the street for the purpose of being connected with the charging pipe of the storage heater on the car, substantially as described and for the purpose set forth. 4th. In an apparatus for charging storage heaters with hot water, a charging pipe, a vessel containing hot water under pressure, said charging pipe communicating with said vessel, said charging pipe provided with a coupler joint capable of being connected with the supply pipe of a storage heater, with a return pipe adapted to be connected with the discharge pipe of a storage heater, substantially as described and for the purpose set forth. 5th. In an apparatus for charging storage heaters with hot water, a charging pipe, a vessel containig hot water under pressure, said charging pipe connected with said vessel, a tank into which said return pipe discharges, a means for pumping the contents of said tank into said vessel, all substantially as described and for the purpose set forth. 6th. In an apparatus for charging storage heaters with hot water, a charging pipe, a vessel capable of containing hot water under pressure, said charging pipe communicating with said vessel, a return pipe, a communication between said return pipe and said charging pipe, a three way valve placed in said charging pipe communicating with said connecting pipe, by the operation of which communication may be made through the charging pipe when the connecting pipe is closed, said valve capable of being operated so as to close said charging pipe and open communication between the connecting pipe and the end of the charging pipe out of which the water flows into the storage heater, substantially as described and for the purpose set forth. 7th. In an apparatus for charging storage heaters with hot water, a charging pipe, a vessel capable of containing hot water under pressure, said charging pipe communicating with said vessel, a return pipe, a communication between said return pipe and said charging pipe, a three way valve placed in said charging pipe communicating with said connecting pipe, by the operation of which communication may be made through the charging pipe when the connecting pipe is closed, said valve capable of being operated so as to close said charging pipe and open communication between the connecting pipe and the end of the charging pipe out of which the water flows into the storage heater, with a check valve placed in said connecting pipe near its juncture with the return pipe arranged to permit the flow of water in one direction only, substantially as described and for the purpose set forth. 8th. In an apparatus for charging storage heaters with hot water, a charging pipe, a receptacle for holding hot water under pressure, communication between said charging pipe and said receptacle, a vault into which said charging pipe passes, said charging pipe provided with suitably hinged joints allowing it to be passed upward through an opening in the top of the vault and brought into contact with a storage heater placed on a car, a return pipe entering said vault and capable of being attached to a car after passing through said opening in the top of the vault, a three way valve placed in said charging pipe, a pipe connecting said charging pipe with said return pipe communicating with said three way valve, a check valve placed in said connecting pipe near its juncture with said return pipe, substantially as described and for the purpose set forth. 9th. In an apparatus for charging storage heaters with hot water, a charging pipe, a receptacle for holding hot water under pressure, suitable connections between said charging pipe and said receptacle, a storage heater, said charging pipe capable of being connected with said storage heater by a suitable coupling, a return pipe connected with said storage heater, a three way valve placed in said charging pipe between said storage heater and said receptacle, a connecting pipe between said return pipe and said charging pipe opening into said valve, all so arranged that, the hot water passing through said receptacle may enter said storage heater very rapidly under great pressure and force out the cold water from said storage heater through the return pipe, and a coupling connecting said return pipe and said charging pipe with said storage heater capable of being broken without allowing hot water to escape, substantially as described and for the purpose set forth. 10th. In an apparatus for charging storage heaters with hot water, a vault placed beneath the surface of the street, a charging pipe, a return pipe in said vault, each of said pipes provided with a hinged portion capable of being elevated through the top of said vault, compensating weights arranged to assist in elevating said pipe, a receptacle containing hot water under pressure with which said charging pipe is connected, with a tank with which said return pipe is connected, all substantially as described and for the purpose set forth.

No. 43,862. Battery Plate. (*Plaque de pile.*)

Edwin Preston Usher, Grafton, Massachusetts, U.S.A., 8th August, 1893; 6 years.

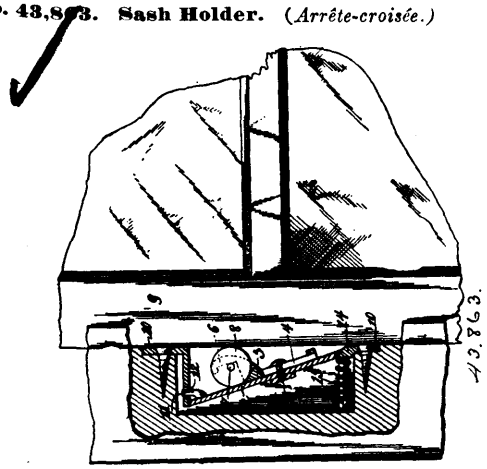
Claim.—1st. The battery plate described, consisting of the marginial frame with open interior spaces and one or more cross bars, the perforated lead foil wrapper distinguished from ordinary sheet lead adnering to said frame and bars, and the filling of active material within said spaces and enclosed by said perforated foil, the edges of said plate being sealed by an acid proof gum, substantially as set forth. 2nd. The method of making battery plates which consists in casting a marginial frame with one or more cross bars joined thereto, and with open spaces between said bars and frame, coating one side of said frame and bars with an adhesive substance,

and applying a leaf of lead foil thereto, then filling the open spaces of the frame with powdered oxide of lead, then applying over the



same another leaf of lead foil, similarly caused to adhere to the frame and bars, then sealing the edges of the plate with acid proof gum, substantially as set forth.

No. 43,863. Sash Holder. (*Arrête-croisée.*)



Louis A. Hathaway and Eugene W. Elkins, both of Kenyon, Minnesota, U.S.A., 1893; 6 years.

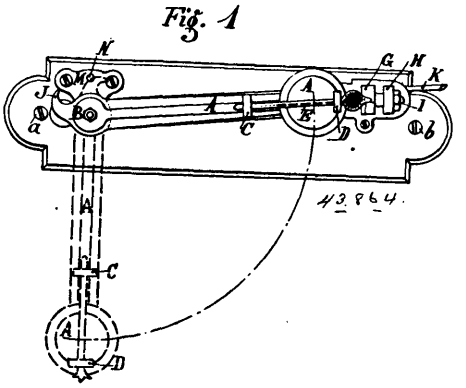
Claim.—1st. A sash holder comprising a triangular casing provided at its ends with securing flanges, and having an open front and close sides, top and back, the back of the casing being inclined and provided with a threaded opening, an adjustable bearing plate arranged on the inclined back of the casing and provided with a longitudinal slot and having at its upper end outwardly, upwardly and inwardly extending angular hooked flanges forming rectangular bearing recesses at their inner sides, a roller disposed between the angular flanges, and adapted for movement upon the inclined back of the casing, and provided with journals located at its ends, and arranged in the bearing recesses, and having a limited movement and confined therein, and a set screw arranged in the slot of the bearing plate and engaging the threaded opening of the casing, substantially as described. 2nd. A sash holder comprising a triangular casing having a hinged back, a spring engaging the back and forming a cushion, an adjustable bearing plate mounted on the back, and a roller journalled on the bearing plate, substantially as and for the purpose described. 3rd. A sash holder comprising a triangular casing composed of triangular sides provided at their bottoms with a rearwardly extending arm, a top having an opening and a back provided at its upper end with a lug engaging the opening of the top, said back being hinged by said lug and having its lower end bifurcated and receiving said arm, a spiral spring mounted on the arm and engaging the back, and a bearing plate arranged within the casing and adjustably secured to the back, and a roller journalled on the bearing plate, substantially as described.

No. 43,864. Fire Alarm. (*Avertisseur d'incendie.*)

Louis Joseph Tirard, Caen, France, 8th August, 1893; 6 years.

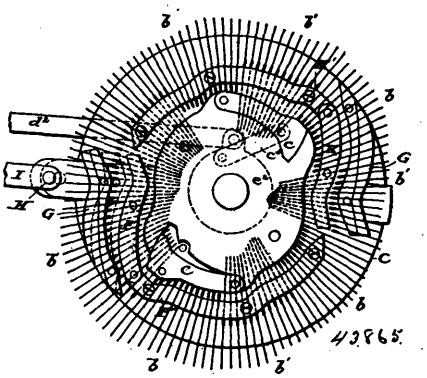
Claim.—1st. In a fire alarm apparatus, a tube K closed at one of its extremities, the open extremity communicating with a receiver *c* containing liquid which can only escape when the closed extremity of the tube is opened. 2nd. The combination of a weighted lever A pivoted at B, with one or more thermometrical tubes E, F, these tubes retaining the lever against the force of gravity, and adapted to burst on the temperature in the locality rising to a predetermined degree, whereby the lever is released. 3rd. The combination with the pipe K and receiver *c*, of a lever A adapted to fall on a predetermined temperature being reached, and having a tongue J adapted to break the closed extremity of the pipe K, thereby permitting the air to pass into the receiver *c*. 4th. The combination of the receiver *c*, with a trough T adapted to move as soon as a certain quantity of liquid has entered the same. 5th. The combination of the trough

Fig. 1



T, with an automatic alarm signal adapted to be set in action by movement of the trough. 6th. The combination of the receiver *c* and pipe K, of a compensator adapted to prevent irregular outflow substantially as described.

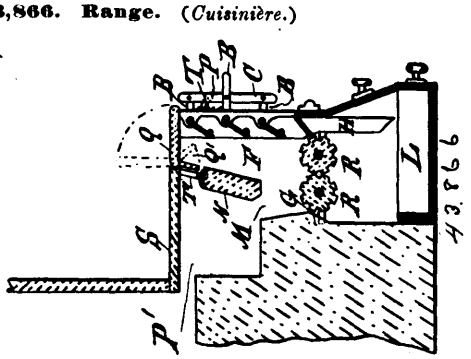
No. 43,865. Knitting Machine. (*Machine à tricoter.*)



George Edward Nye and Edward Tredick, both of Philadelphia, Pennsylvania, U.S.A., 8th August, 1893; 6 years.

Claim.—1st. In a circular knitting machine, the cylinder, its needles and actuating cams, in combination with the dial, its needles *b*, *b*^{1}, parts of which have their studs or heels in different positions from those of the remainder, the throw out cam *c* acting on the needles of one form, the draw in cam G acting on the needles of the other form, and the intermediate cam acting as a draw in cam for the needles of one form, and as a throw out cam for those of the other form, said cams being adjustable to move the different needles different distances, and a thread guide whereby one and the same thread is laid to all the needles. 2nd. In combination with the needles differing in the form of their shank, the cam F and the cams *c* and G, and means for independently adjusting the cams *c* and G.

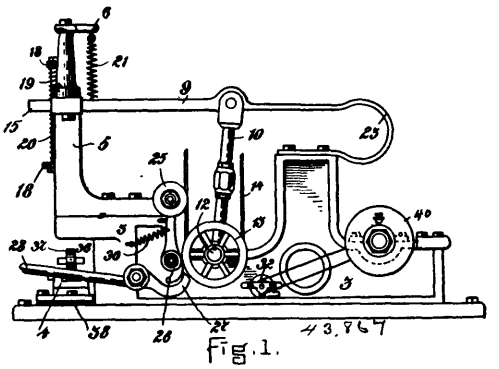
No. 43,866. Range. (*Cuisinière.*)



Henry Leggott, Bradford, assignee of Edwin Marsh, Leeds, York, all in England, 8th August, 1893; 6 years.

Claim.—A fire alarm space or furnace F, fitted with lower bars A at the front, a back N with openings M and T at the underside and top respectively, combined with grooved or fluted rollers R, R, at the bottom, and plate Q at the top, all arranged substantially as shown and described.

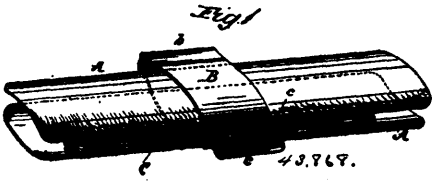
No. 43,867. Power Hammer. (*Marteau.*)



Joseph O'Brien, Boston, Massachusetts, U.S.A., 9th August, 1893; 6 years.

Claim.—1st. In a power hammer, the combination with a suitable standard, its guides, and an oscillating helve slotted at its free end, of an apertured hammer head adapted to reciprocate vertically in said guides and loosely of the helve, which projects therethrough, a rod rigidly in said hammer head but extending loosely through the helve slot, and springs mounted on said rod on opposite sides of the helve, all operating substantially as set forth. 2nd. In combination with a standard having suitable guides, a helve movably secured to said standard and slotted longitudinally at its free end, a rod extending loosely through the helve slot, an apertured hammer head reciprocating in said guides and having no positive connection with the helve which moves freely in said aperture, spring mediums upon said rod on opposite sides of the helve, and means for oscillating the helve, composed of a rotary crank shaft, and a connecting rod to the helve, substantially as stated. 3rd. In a power hammer, a suitable standard, the guides thereon, a spring actuated helve slotted at its free end and secured to the standard by the spring 23, a rotary crank shaft and connecting rod to oscillate said helve, combined with an apertured hammer head mounted in said guides, springs interposed between the ends of the hammer head and opposite sides of the helve, a rod to hold said spring in place and extending loosely through the slotted end of the helve, and the balance spring 21 interconnecting the free end of the helve with the standard, substantially as and for the purposes explained.

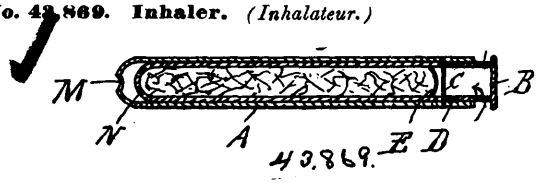
No. 43,868. Glove Package Holder.
(*Porte-paquet de gant.*)



Richard Henry Moore, Great Barrington, Massachusetts, U.S.A., 9th August, 1893; 6 years.

Claim.—1st. A holder for gloves in package form, consisting of two independent or detached strips or splints adapted to receive and hold a package of gloves in between them, and of an independent spring jaw like clamp or clip constructed to receive said splints within or through it, and to act with a spring pressure on the splints with their contained package of gloves, and to admit of either splint being moved independently through the clip to expose either end of the package of gloves, substantially as specified. 2nd. In a glove package holder, substantially as described, the longitudinal detached strips or splints A, A, of curved construction, transversely presenting concave interiors, in combination with the independent spring jaw like clamp or clip B for operation together and in relation with the package of gloves in between the splints, as set forth.

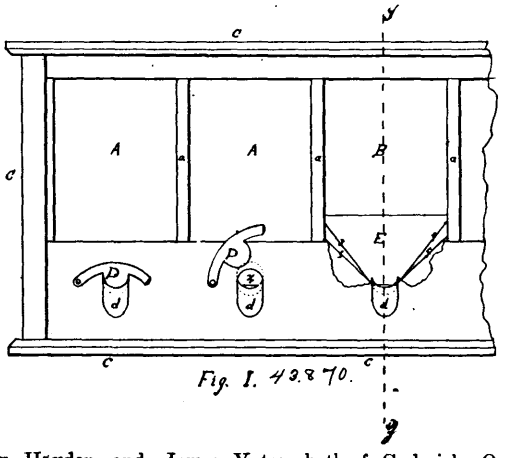
No. 43,869. Inhaler. (*Inhalateur.*)



Henry De Puy Cushman, Three Rivers, Michigan, U.S.A., 9th August, 1893; 6 years.

Claim.—1st. An inhaler composed of the combination of a hollow casing open at both ends, and a hollow sliding sleeve also open at both ends and nearly of the same length as the casing, said sleeve adapted to contain medicament and to slide longitudinally within the casing and by such movement to unstop the opening both in the sleeve, and in the casing at both ends and to close them in like manner, substantially as set forth. 2nd. In an inhaler, the combination, with a casing open at both ends, of a sleeve also open at both ends, adapted to slide longitudinally with respect to the casing and by such movement to open or close passages through the inhaler, and stop mechanism for limiting the movement of the sleeve with respect to the casing, substantially as set forth.

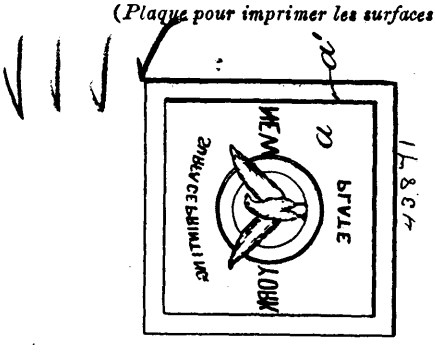
No. 43,870. Apparatus for Storing and Handling Goods. (*Appareil pour emmaganiser et manier les marchandises.*)



Henry Hayden and James Yates, both of Goderich, Ontario, Canada, 9th August, 1893; 6 years.

Claim.—The combination of the sloping bottom E, the discharge trough *d*, *d*, and the cut offs D, D, substantially as and for the purposes hereinbefore set forth.

No. 43,871. Surface Printing Plate.
(*Plaque pour imprimer les surfaces.*)



John Mullaly and Lathrop L. Bullock, both of New York, State of New York, U.S.A., 9th August, 1893; 6 years.

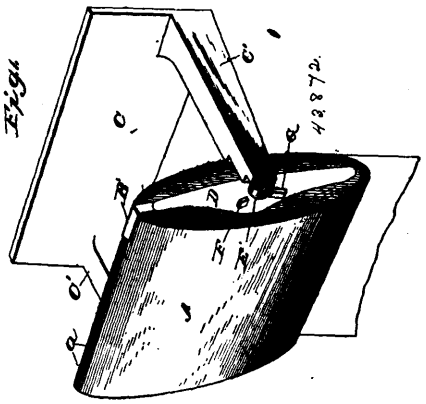
Claim.—1st. The process of manufacturing aluminium surface printing plates of different prescribed grades of porosity, consisting in regulating the density of the aluminium plates mechanically, according to the character of the designs to be imposed thereon, substantially in the manner described. 2nd. The herein described plate for use in surface printing, consisting of a plate in which aluminium predominates, having a suitable design imposed thereon, said plate being compressed to a prescribed density, substantially as described, for the purpose of adapting it to the nature and requirements of the design imposed thereon.

No. 43,872. Rolled Paper and Fixtures Therefor.
(*Papier en rouleau et attache.*)

Oliver Hewlett Hicks, Chicago, Illinois, U.S.A., 9th August, 1893; 6 years.

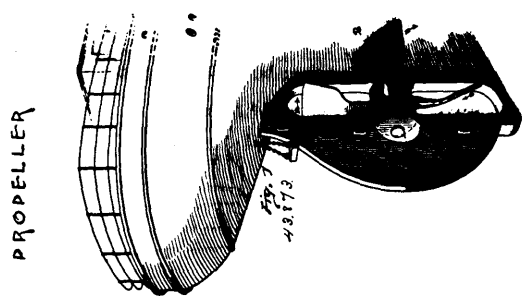
Claim.—1st. As a new article of manufacture, a roll of paper, provided at its end with a stay recess adequately large to receive or retain against misplacement or separation therefrom in rotating the roll, the stay on a fixture for the roll. 2nd. As a new article of manufacture, a roll of paper, having tearing lines at intervals therein, said lines coinciding in the roll and provided in its end with a stay recess in line with said coincident tearing lines, and adequately large to receive and retain against displacement or separation therefrom in rotating the roll, the stay on a fixture for the roll, substantially as described. 3rd. As a new article of manufacture, the hereindescribed oval roll of toilet paper having the relatively large stay recess or notch in the edge at one end of the oval with coincident

lines of weakness extending from said notch across the end of the oval, substantially as described. 4th. In a paper roll fixture, the



combination of a rotary support for the roll and a stay projecting from the support for entering a stay recess in the end of the roll, substantially as and for the purpose set forth. 5th. In a paper roll fixture, the combination with a rotary support for the roll having a stay projection for entering a stay recess in the end of the roll, of a stop for preventing a complete rotation of the support, substantially as described. 6th. In a paper roll fixture, the combination with a rotary support for the roll having a stay projecting from the same for entering a stay recess in the end of the roll, of a spring stop for retarding the rotation of the support, substantially as described. 7th. In a paper roll fixture, the combination with the rotary support for the roll and a projection on said support, of a spring stop for retarding the rotation of the support and a rigid stationary stop for arresting the rotation of the support, substantially as described.

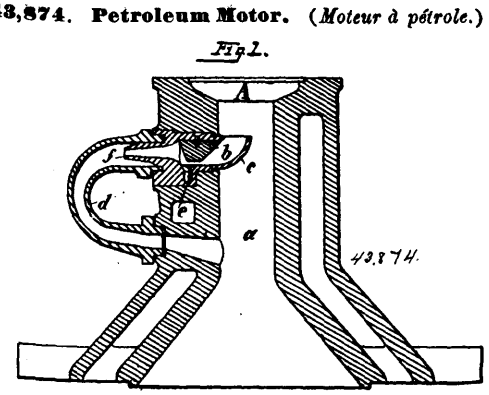
No. 43,873. Screw Propeller. (*Hélice.*)



Alfred Wells Case, Highland Park, Connecticut, U.S.A., 9th August, 1893; 6 years.

Claim.—A propeller consisting of a hub with projecting blades having uninterrupted working surfaces set upon the pitch of a screw, with the working surface of each blade forwardly inclined at an angle to the pitch of the screw, so as to thrust outwardly as well as rearwardly when in motion, substantially as specified.

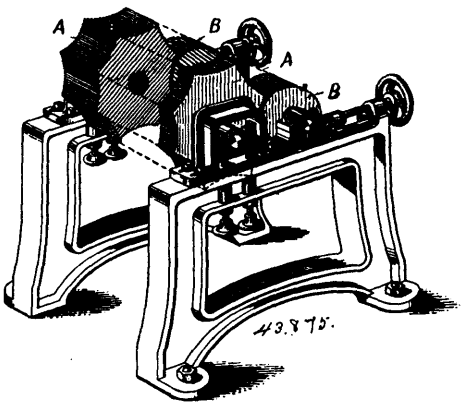
No. 43,874. Petroleum Motor. (*Moteur à pétrole.*)



Oscar Brünler, Eutritzsch, Leipzig, Germany, 9th August, 1893; 6 years.

Claim.—1st. In a petroleum motor, the combination of the cylinder and piston, an air inlet passage *a* in said cylinder, an air deflector or basin *c* in said passage, a curved tube *d* leading from said deflector and returning into said passage *a*, with a petroleum inlet *e*, and an evaporating nozzle *f* in said tube, whereby a part of the air current drawn into the cylinder by the action of the piston is deflected into the curved tube to evaporate the petroleum, substantially as described.

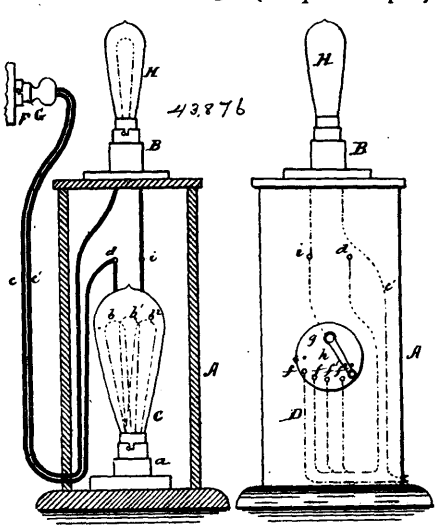
No. 43,875. Roller Mill. (*Moulin à rouleaux.*)



James Jones, Little Dawley, Shropshire, England, 9th August, 1893; 6 years.

Claim.—1st. In roller grinding mills, a stationary roll having a number of concave sides around its periphery in combination and acting in conjunction with a grinding or revolving roller which latter operates within and against the face of any one of the said concavities, and on different parts of said face, substantially as and for the purposes hereinbefore set forth. 2nd. In roller grinding mills, the combination of the revolving grinding roller the stationary roll having a series of concave-shaped grinding faces means for adjustably holding the stationary concave sided roll so that it may be adjusted on its axis to present different concave-shaped grinding faces to the grinding roll, and means for adjusting both said rolls so as to vary their vertical relation as well as their distance apart, substantially as and for the purposes hereinbefore set forth.

No. 43,876. Electric Lamp. (*Lampe électrique.*)



George W. Hall and Joseph J. De Marr, both of Georgetown, Colorado, U.S.A.; 9th August, 1893; 6 years.

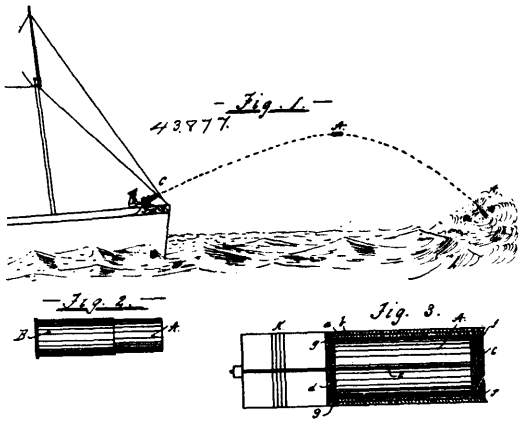
Claim.—The combination, with the lamp socket I, the long contact spring J, and the short contact spring K, of the lamp L, provided with the carbon filaments i i^1, of different resistance, the carbon filaments being connected to the contact button k, at one end, and connected with separate contact buttons l, m, at the opposite end, substantially as specified.

No. 43,877. Shell for Distributing Oil on Water.
(*Bombe pour distribuer l'huile sur l'eau.*)

John C. Simmonds and Alonzo Penniston, both of Jersey City, State of New Jersey, U.S.A., 9th August, 1893; 6 years.

Claim.—1st. The herein described shell or receptacle having open ends closed by connected movable sections, adapted to be unseated by the weight of the water as the shell strikes its surface, substantially as described. 2nd. The herein described shell or receptacle having open ends, connected movable sections for closing said ends, and a steering device for guiding said shell, substantially as de-

scribed. 3rd. The herein described shell or receptacle having open ends, and adapted to be sealed by removable connected sections,



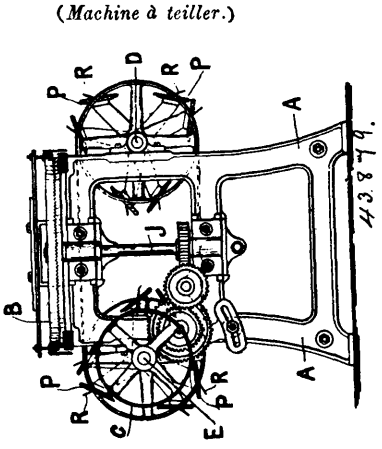
one of said sections being of less diameter than the shell, and provided with a washer for sealing said shell, substantially as set forth. 4th. The herein described shell or receptacle having open ends, removable connected sections for closing said openings, one of said sections being of greater weight and of less diameter than the other whereby when said sections strikes the water it will be forced into the shell, thus opening the opposite end and allowing the contents of the shell to spread upon the water, substantially as described.

No. 43,878. Bolting Reel. (*Blutoir.*)

John P. Sterling, Le Mars, Iowa, U.S.A., 9th August, 1893; 6 years.

Claim.—1st. The combination in a rotary bolting reel carrying a peripheral cloth, of a series of angularly disposed distributing boards pivoted at their outer edges near to the cloth, a series of elevator or lifting boards arranged at an angle in the space between the distributing boards and the cloth, and also pivoted at their outer edges, and means for adjusting the free edges of both the distributing and the elevator or lifting boards to vary the angles at which they are set, substantially as set forth. 2nd. In a bolting reel, an inner peripheral series of pivoted distributing boards having their outer pivoted edges away from the bolting cloth to leave fall passages, means for adjusting the inner edges of said boards, and adjustable elevator or lifting boards arranged at an obtuse angle to the distributing boards between the same and the bolting cloth, and spaced from the distributing boards to leave slide spaces or passage, substantially as set forth. 3rd. In a bolting reel, a series of adjustable distributing boards pivoted at their outer edges near to the bolting cloth, and having their inner edges disposed at an angle within the reel, and a series of elevator or lifting boards pivoted at their outer edges away from the bolting cloth to leave their inner edges adjacent to the distributing boards and to form variable obtuse angles therewith, substantially as set forth. 4th. In a bolting reel, an inner peripheral series of adjustable distributing boards disposed at an upward angle from their outer edges with respect to the relation of the reel, and a series of elevator or lifting boards arranged between the distributing boards and bolting cloth, and disposed at an obtuse angle to said distributing boards, substantially as set forth.

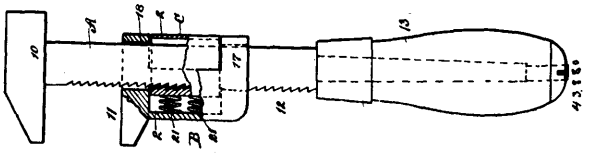
No. 43,879. Scutching Machine.
(*Machine à teiller.*)



Geogre E. Donisthrope and Taylor Burrows, London, England, 9th August, 1893; 6 years.

Claim.—1st. The improved scutching machine hereinbefore described and illustrated by way of example in the drawings annexed hereto and consisting essentially of the combination of a metallic carrier such as S, constructed of a thin endless metal ribbon or band or bands disposed and arranged to travel with teeth or serrations formed integrally on the uppermost edge thereof, a locking plate or plates such as U, descending below such uppermost edge so as to cause the fibrous stems, etc., laid thereon to assume an undulating form, and thus firmly lock same during scutching, and two or more separate beating devices or scutchers arranged to revolve in opposite directions to one another on one side of the machine, and a similar pair or pairs of beating devices or scutchers similarly mounted on the other side of the machine and arranged to revolve in opposite directions to one another, substantially in the manner, and for the purposes hereinbefore set forth. 2nd. The improved finishing scutching machine arranged combined and acting substantially in the manner, and for the purposes hereinbefore described and illustrated in the drawings hereunto annexed.

No. 43,880. Wrench. (*Clé à écrou.*)



Frederick Burns Wells, Montreal, Quebec, Canada, 10th August, 1893; 6 years.

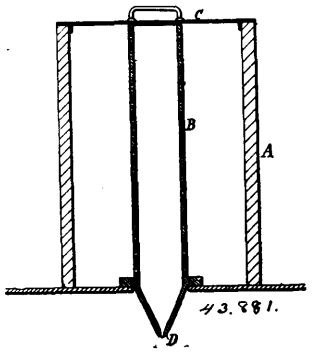
Claim.—A wrench consisting in the shank A, provided with the fixed jaw 10, and having its front face provided with upwardly bevelled teeth 12, the frame B, sliding on the shank provided with the lower jaw 11, cutaway at its sides and rear between its upper and lower ends and recessed between its two side bars 15, 16, the the sleeve C upon the shank and exposed through the opening in the rear of the frame for operation by the finger of the operator, springs interposed between the sleeve and the front bar 14 of the frame, the sleeve being provided with internal downwardly bevelled teeth interlocking with the teeth 12 and permitting the jaw 11 to be freely slid towards the jaw 10, and to be slid oppositely by pressing on the rear wall of the sleeve to disengage said teeth, substantially as set forth.

No. 43,881. Art of Producing Metallic Zinc.
(*Art de production de zinc metallique.*)

Parker Cogswell Choate, New York, State of New York, U.S.A., 10th August, 1893; 6 years.

Claim.—1st. The hereinbefore described process of producing metallic zinc, which consists in heating an ore of zinc, carrying lead in the presence of a reducing agent in a furnace, to which air is admitted so as to volatilize the zinc and lead, and those constituents of the ore more volatile than zinc, and condensing and collecting the product, thereby obtaining a mixed zinc and lead fume, free from the less volatile constituents of the ore, heating the mixed fume to drive off the constituents more volatile than zinc, and granulate and condense the mass, heating the product mixed with carbon in a retort to distil the zinc and finally condensing the zinc vapour and drawing off the molten lead and metallic zinc, substantially as set forth. 2nd. The hereinbefore described process of producing metallic zinc, which consists in heating zinc fume, mixed with lead fume or pulverized metallic lead, to granulate and

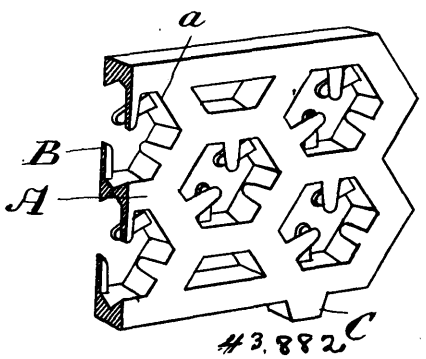
condense the fume, heating the product mixed with carbon in a retort to distil the zinc, and finally condensing the zinc vapour and



separating the metallic zinc and molten lead, substantially as set forth.

No. 43,882. Secondary Battery.

(*Batterie secondaire.*)



George Lawson Ballard, Toronto, Ontario, Canada, 10th August, 1893; 6 years.

Claim.—As an improved secondary battery, one or more plates of solid lead or other suitable material, a series of recessed holes being cast in the face of each plate to receive and hold the active material which is locked in position by fingers projecting from the edge of each hole on each side of the plate, substantially as and for the purpose specified. 2nd. As an improved secondary battery, one or more plates of solid lead or other suitable material, a series of recessed holes being cast in the face of each plate to receive and hold the active material, which is locked in position by fingers projecting from the edge of each hole on each side of the plate, in combination with two bridges E, having notches D, made in its end, substantially as and for the purpose specified. 3rd. In a secondary battery, a terminal consisting of a copper core covered with lead, substantially as and for the purpose specified.

No. 43,883. Food Preparation.

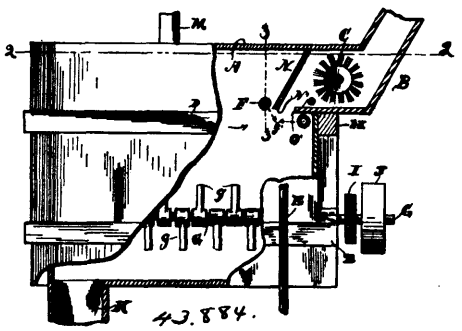
(*Preparation alimentaire.*)

William Clark, assignee of James Thomas Donald, both of Montreal, Quebec, Canada, 10th August, 1893; 6 years.

Claim.—1st. A humanized milk food in a dry dessicated form devoid of any other food properties than the natural milk elements, but having an increased amount of the natural fat of the milk (cream) containing albuminose, and adapted upon the addition of water to produce a milk or fluid practically identical with human breast milk. 2nd. A humanized milk food in a condensed fluid form devoid of any other food properties than the natural milk elements, but having an increased amount of the natural fat of the milk (cream) containing albuminose, and adapted upon the addition of water to produce a milk or fluid practically identical with human breast milk. 3rd. A humanized milk food comprising cream, milk, soda bicarbonate, extract of pancreatine and ground milk sugar, combined in a dry dessicated form in substantially the proportions specified, and adapted upon the addition of water to produce a milk or fluid practically identical with human breast milk. 4th. A humanized milk food comprising cream, milk, soda bicarbonate, extract of pancreatine and ground milk sugar combined in a condensed fluid form in substantially the proportions specified, and adapted upon the addition of water to produce a milk or fluid practically identical with human breast milk. 5th. The process of preparing milk food preparations, which consist in first mixing cream with pure fresh cow's milk, heating the mixture to a temperature of 100° Fahr., and adding soda bicarbonate and extract of pancreatine, maintaining the heat temperature for a short period then raising the same to 212° Fahr., evaporating to a dense condition and adding ground milk sugar to and mixing it with the mass, as set forth. 6th. The process of preparing milk food preparations, which consists in first mixing cream with pure fresh cow's milk, heating the mixture to a temperature of 100° Fahr., and adding soda bicarbonate and extract of pancreatine, maintaining the heat temperature for a short period then raising same to 212° Fahr., and evaporating to a dense condition, adding ground milk sugar to and mixing it with the mass, and finally drying and granulating the whole, as set forth.

No. 43,884. Process of Preparing Clay.

(*Procédé pour préparer la glaise.*)



Phineas Arnold, Canal Dover, Ohio, U.S.A., 10th August, 1893; 6 years.

Claim.—The process of preparing clay herein described, the same consisting first, in taking the clay in a dust like or finely disintegrated condition, and spraying or scattering the same through steam, and secondly, in working the clay to develop its plasticity, substantially as set forth.

No. 43,885. Ointment. (*Onguent.*)

Louis Alfred Côté, Montreal, Quebec, Canada, 10th August, 1893; 6 years.

Claim.—An ointment, composed of beeswax, lard, rosin, yolks of eggs and poplar buds, treated as above described and compounded in the proportions above stated.

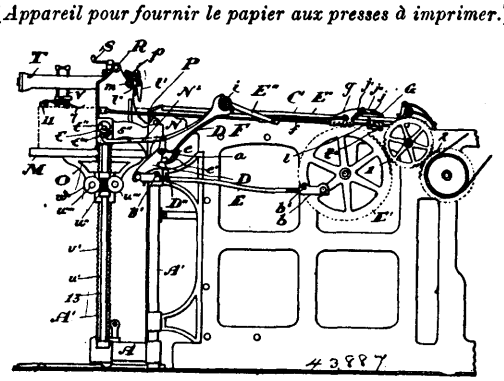
No. 43,886. Drying the Residues of Spirit Distillation, Brewery Grains and Starch Works for Cattle Feed. (*Procédé pour sécher les résidus de distillation des spiritueux de grains des brasseries, pour la nourriture des bestiaux.*)

The Actien-Maschinenbau-Anstalt, Vormals, Venuleth & Ellenberger, assignees of Rudolph Gibermann, all of Darmstadt, Germany, 10th August, 1893; 6 years.

Claim.—The process of manufacturing acidless cattle feed cakes from distillery wash, brewery grains and refuse pulp of starch works, which consists in precipitation of the albuminous matter while in a heated state by an argillaceous substance, pressing out the liquid while solidifying the cakes, then drying the cakes by compressed air and subsequently by heat, as set forth.

No. 43,887. Paper Feeding Machine.

(*Appareil pour fournir le papier aux presses à imprimer.*)



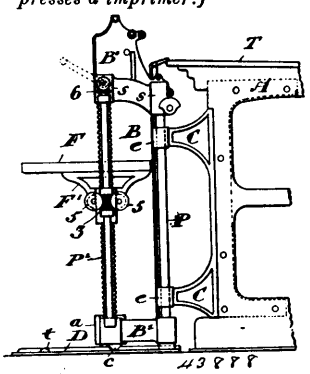
James Lackie Morrison, Toronto, Ontario, Canada, assignee of Thomas A. Briggs, Arlington, Massachusetts, U. S. A., 10th August, 1893; 6 years.

Claim.—1st. In combination, with the feed table of a printing machine, longitudinal guide on opposite sides of the machine, slides mounted on said guides, a transverse shaft connected to said

slides, grippers on said shaft, rock arms on opposite sides of the machine, stationary segmental gears fixed to the frame concentric to the axis of the rock arms, shafts journalled on the rock arms lengthwise thereof, pinions on both ends of said shafts and receiving motion from the stationary gear, shafts journalled transversely to the free ends of the rock arms, pinions on said transverse shafts meshing with the outer pinions on the rock arms, pitmen attached to the aforesaid slides, and arms fixed to the transverse shafts on the rock arms connected and to the pitmen, substantially as described and shown. 2nd. In combination, with the feed table, of a printing machine, longitudinally reciprocating slides on opposite sides of said table, a transverse shaft journalled on said slides, a stationary bar at the side of and parallel with the shaft, gripper hooks mounted on the shaft and sustained in their position by the stationary bar, gripper tongues fixed to the shaft, and a crank fixed to the end of the shaft for turning the same and opening the grippers, as set forth. 3rd. In combination, with the feed table of a printing machine, longitudinally reciprocating slides on opposite sides of said table, a transverse shaft journalled on said slides, a stationary bar by the side of and parallel with the said shaft, gripper hooks hung loosely on the shaft and sustained in this position by the stationary bar, gripper tongues fixed to the shaft, a crank on one end of the shaft, a finger pivoted to the slide and connected with the crank, and a stationary stop actuating said finger to open the grippers, as set forth. 4th. In combination, with the shaft j, the stationary bar H, the gripper hook G, formed with perforated ears G^1, G^1, and mounted thereby on said shaft and having shoulders G^{11}, G^{11}, abutting against the stationary bar, and the tongue H, formed with the eye H^1, and clamped on the aforesaid shaft between the ears G^1, G^1, substantially as described and shown. 5th. In combination, with the feed table of a printing machine longitudinal slides on opposite sides of the machine, a gripper shaft journalled on said slides, a crank on one end of said shaft, a finger pivoted to one of the slides, and connected with the crank, and a tripper hung on the frame back of the feed table in the path of the finger and movable forward and restrained from rearward movement, substantially as described and shown. 6th. In a paper feeding machine, the combination of a transverse shaft provided with a longitudinal groove and the paper pusher formed with a hook and hung thereby on said shaft, and provided with a longitudinal channel in its pendent portion, a spiral spring in the bottom of said channel, and a bolt seated on said spring and forced thereby into engagement with the groove of the shaft, substantially as described and shown. 7th. In combination, with the rock shaft m, provided with a longitudinal groove, the paper pushing arm J, formed with a book J^{111}, and provided with a channel n, recess 14, and a slot in its side, a sliding bolt n^1, and a spring n^{111}, in said channel, and a set screw n^{11}, passing through the bolt, substantially as described and shown. 8th. In combination, with the paper supporting table and rock shaft, a transverse shaft over said table, a lever fixed to the rock shaft, a bell crank fixed to the transverse shaft and connected at its lower end to the aforesaid lever, arms secured to the transverse shaft, fingers hinged to said arms and inclined forward therefrom, rods attached to the fingers and extending upward therefrom, discs on said rods, a plate pivoted to the upper end of the bell crank and having its front edge under the discs, a cam pivoted to the frame, an arm attached to the end of said plate, a roller pivoted to the front end of said arm and travelling on said cam, a lug on the end of said arm, and an inclined cam on the frame for engaging the lug and thereby lifting the arm and carrying the roller to the top of the cam, as set forth. 9th. The combination of the frame posts formed with vertical racks, brackets sliding vertically on said posts, the paper supporting table mounted on the brackets, horizontal shafts extending across the machine and journalled on the brackets, pinions on said shafts, engaging the racks, worm on the shafts, a vertical shaft journalled to the frame, a worm gear movable vertically on the latter shaft and locked from rotation thereon, a mitre pinion fixed to the end of the vertical shaft, an actuating mitre pinion pivoted to the frame, and a crank turning the latter pinion, as set forth. 10th. In combination, with the vertically movable table, vertical racks, pinions engaging the racks and carrying the table, a vertical shaft, gears transmitting motion from said shaft to the pinion, a mitre pinion fastened to the vertical shaft, a similar pinion meshing therewith, a ratchet wheel fixed to the latter pinion, a pawl engaging said ratchet wheel and a rock arm actuating the pawl, as set forth. 11th. In combination, with the vertically movable table, vertical races, pinions engaging said racks and carrying the table, a vertical shaft, gears transmitting motion from said shaft to the pinions, a mitre pinion fixed to the vertical shaft, a stud pin projecting horizontally from the frame, a mitre pinion mounted loosely on said stud pin and engaging the mitre pinion of the vertical shaft, a ratchet wheel fixed to the mitre pinion on the stud pin, a hanger mounted loosely on the hub of said pinion, a pawl pivoted to said hanger and engaging the ratchet wheel, a rod connected to the hanger and a rock arm connected to said rod, as set forth and shown. 12th. In combination, with the loosely mounted pinion, a ratchet wheel fixed to said pinion, a hanger mounted loosely on the hub of the pinion, a pawl pivoted to the hanger and projecting over the side of the ratchet wheel, a rod connected to the hanger, a rock arm connected to said rod, pins projecting from the side of the ratchet wheel and a hand crank provided with a head of greater diameter than the ratchet wheel, and provided in said head with holes for the reception of the aforesaid pins, substantially as and for the purpose described. 13th. In combination, with the loosely mounted pinion and ratchet wheel fixed thereto, a hanger loosely mounted on the hub of said pinion, a pawl pivoted to said hanger, a rock arm, a crank hung loosely on the shaft of said rock arm, projections on the adjacent sides of the rock arm and crank and transmitting intermittent motion to the crank, and a rod connecting the crank with the aforesaid hanger, and a lever actuated by the paper feeding mechanism and returning the pawl to its normal position for re-engaging the ratchet wheel, as set forth. 14th. In combination, with the paper feeding fingers, the vertically movable table and mechanism for raising and lowering said table, a vertical shaft transmitting motion to said mechanism, a mitre pinion fixed to said shaft, a stud pin projecting horizontally from the frame, a mitre pinion mounted loosely on said stud pin, a ratchet wheel fixed to the latter pinion, a hanger loosely mounted on the hub of said pinion, a pawl pivoted to said hanger, a rock arm, a crank hung loosely on the shaft of the rock arm, projections on the adjacent sides of the rock arm and a crank with a partial play between said projections, a rod connecting the crank with the aforesaid hanger, and thereby cause the pawl to actuate the aforesaid ratchet wheel, a crank shaft engaging the said rod to return to its position of rest, a lever adapted to actuate said crank shaft, an oscillatory lever connected with said lever and lifted by the paper feeding fingers, and a cam traversed by said oscillating lever, and thereby raising said oscillatory lever, as set forth. 15th. In combination with the table raising mechanism, a loosely mounted pinion for actuating said mechanism, a ratchet wheel fixed to said pinion, a pawl connected to an oscillatory support, a rock arm transmitting motion to said support, a crank shaft engaging said support, oscillatory paper feeding fingers, an oscillatory plate lifting said fingers, a cam pivoted to the frame, an oscillatory lever travelling on said cam and actuating the lifting plate, an oscillatory lever controlled by the oscillating feed fingers, and a lever connected with said oscillatory lever and adapted to actuate the aforesaid crank shaft, as set forth. 16th. In combination with the rock shaft a, the lever M^1, shaft m, bell cranks L, L, pitman L^1, the plate o, and arm o^1, both attached to one and the same shaft, pivoted to the upper end of the bell cranks, the roller o^{11}, on the free end of said arm, the pivoted cam p^1, provided with the weighted arm p^{11}, the lug o^{111}, and cam o^{1111} attached, respectively, to the arm o^1, and frame, the plate p, and lever g, pivoted to rock simultaneously, the lever r^1, pivoted to the bell crank and connected to the lever g, the arms J, attached to the shaft m, the paper pushing fingers J^1, hinged to said arms, rods K, attached to said fingers, and having their free ends under the plate p, discs K^1, connected to the rods and lifted by the plate o, the crank shaft s^1, having the arms s, in the path of the lever r^1, the loosely mounted pinion t^1, ratchet wheel t^{11}, fixed to said pinion, hanger t^{111}, mounted loosely on the hub of the pinion, the pawl t^{1111}, connected to said hanger, the rock arm D^1, crank N, actuated by said rock arm in one direction, and the rod N^1, connecting said crank with the aforesaid hanger, and moving the same in said direction and engaged with the crank s^{11}, of the aforesaid crank shaft, and moved thereby in the opposite direction, substantially as described and shown. 17th. In combination, with the frame, and paper supporting table, the vertical flange P^1, on the base of the frame, the stays P, resting against said flange, the cross bar P^{11}, attached to the frame heads and formed with a longitudinal T-shaped groove, and the plates Q, secured to the stays and provided with T-heads inserted in the groove of the cross bar, as set forth. 18th. In combination, with the stay P, and the cross bar P^{11}, provided with a longitudinal T-shaped groove, the plate Q, formed with a T-head, the attaching bolt passing through said plate and head, and the spring Q^{11}, interposed between the head of the bolt and the head of the plate, substantially as described and shown. 19th. The combination, with the frame and paper supporting table, of cross bars secured to the top and bottom of the frame and paper sustaining bars supported in vertical positions on said cross bars, and adjustably lengthwise of the latter, to allow said vertical bars to be set closely against opposite sides of the pile of paper, on the supporting table, as set forth. 20th. The combination, with the frame and paper supporting table, of horizontal rack bars extending across the frame, sleeves mounted loosely on said bars, paper sustaining bars secured to said sleeves, vertical shafts journalled on said bars, and pinions on said shafts engaging the race bars, as set forth. 21st. In combination, with the horizontal rack bars extending across the machine, sleeves mounted loosely on said bars, vertical journal boxes on the sleeves, split longitudinally, clasping screws connected to said journal boxes, vertical shafts in said boxes, pinions on said shafts engaging the rack bars, and paper sustaining bars attached vertically to said sleeves, as set forth and shown. 22nd. In combination, with the frame and paper supporting table, laterally adjustable paper-sustaining bars for engaging the side edges of the paper piled on the table, and paper separating mechanism carried by said bars to a corresponding position in relation to the pile of paper, as set forth. 23rd. In combination, with the frame and paper supporting table, cross bars secured to the frame, vertical bars connected to the cross bars adjustably lengthwise of the latter, arms extending from vertical bars, and paper separating mechanism connected to said arms, as set forth. 24th. In combination, with the frame and paper supporting table, cross bars attached to said frame, sleeves mounted movably laterally on

said bars, clamping screws confining the sleeves on said bars, paper sustaining bars attached vertically to the said sleeves, arms extending rigidly rearward from said vertical bars, and paper separating mechanism connected to said arms, all combined to simultaneously adjust said paper sustaining bars and paper separating mechanism laterally in their position in relation to the width of the pile of paper, substantially as set forth. 25th. In combination, with the frame and paper supporting table, rack bars extending across the frame, sleeves mounted loosely on said bars, vertical paper sustaining bars attached to said sleeves, vertical journal boxes on said bars split longitudinally, clamping screws on said boxes, vertical shafts passing through the boxes, pinions on said shafts engaging the rack bars, cranks on the shafts, arms extending from the vertical bars and paper separating mechanism connected to said arms, as set forth. 26th. In combination, with the frame and paper supporting table, brackets supported adjustably in their positions in relation to the width of the paper piled on the table, and paper separating mechanism sliding vertically on said brackets and comprising a finger bearing upon the paper, a finger buckling the paper, and a rotary foot separating the paper, substantially as set forth. 27th. In combination with the frame and paper supporting table, cross bars attached to said frame, vertical paper sustaining bars connected to the cross bars, adjustable lengthwise of the latter, arms extending from said vertical bars, brackets carried on said arms, adjustable lengthwise thereof, and paper separating mechanism connected to said bracket, as set forth. 28th. In combination with the frame and paper supporting table, laterally adjustable vertical bars, arms extending horizontally rearward from said bars, oscillatory shafts extending lengthwise of said arms, brackets hung on said shafts, and paper separating mechanisms connected movable vertically to said brackets and actuated by the aforesaid shaft, as specified. 29th. In combination with the frame and paper supporting table, a rock shaft, a gear on said shaft, a horizontal shaft parallel with the line of feed, a gear on the latter shaft meshing with that of the rock shaft, a bracket hung on said horizontal shaft, and paper separating mechanism connected to said bracket and actuated by the said horizontal shaft, and a paper buckling finger moving in the direction of the feed of the paper, as set forth. 30th. In combination with the frame and paper supporting table, laterally adjustable paper sustaining bars, arms extending horizontally from said bars, a rock shaft pivoted to the frame, gears on said shaft, shafts extending lengthwise of said arms, gears on the latter shaft meshing with those of the rock shaft, brackets hung on the shafts of the arms, and paper separating mechanisms connected movable vertically to said brackets and actuated by the latter shafts, as set forth. 31st. In combination with the frame and paper supporting table, a rock shaft extending across the frame, paper feeding devices connected to said rock shaft, a horizontal shaft at right angles to the rock shaft, gears transmitting motion from the said rock shaft to the said horizontal shaft, a bracket hung on the latter shaft and paper separating mechanisms connected to the brackets and actuated by the aforesaid horizontal shaft and movable in the direction of the feed of the paper, as set forth. 32nd. In combination with the frame and paper supporting table, laterally adjustable paper sustaining bars, arms extending rearward from said bars, shafts extending lengthwise of said arms and pivoted thereto, brackets hung on said shafts, a rock shaft and gears actuating the aforesaid shafts, paper feeding devices connected to said rock shaft, and paper separating mechanisms connected movable vertically to the brackets and actuated by the shafts of the aforesaid arms, substantially as set forth. 33rd. In a paper separating mechanism, the combination of a paper buckling finger, an arm bearing on the top of the paper in front of said finger, a revoluble foot entering between the buckled top sheet of the said paper between said finger and arm, and frictional rubber bearings secured to the top of said foot, as set forth. 34th. In a paper separating mechanism, the combination, with a paper buckling finger held in contact with the top of the paper, a friction block on the bearing end of said finger, a spring finger bearing on the paper in front of the paper buckling finger, a vertical revoluble shaft provided with a foot entering beneath the paper buckled between the aforesaid fingers, a lever connected to the paper buckling finger, and a cam attached to the aforesaid shaft and engaging the said lever and thereby actuating the paper buckling finger, as set forth. 35th. In combination, with the paper feeding table, a horizontal rock shaft parallel with the line of feed, a bracket connected to said shaft, a vertical shaft sustained movable vertically in the bracket, gears transmitting motion from the horizontal shaft to the vertical shaft, a foot extending from the vertical shaft, a cam affixed to the latter shaft, an oscillatory paper buckling finger held in contact with the paper back of said foot, a lever extending from the buckling finger and actuated by the aforesaid cam, and a finger bearing on the paper in front of the aforesaid foot, substantially as set forth and shown. 36th. In combination, with the paper supporting table, the rock shaft x, the bracket y, provided with ears receiving through them the rock shaft and provided at the opposite side with vertically perforated ears y^{11}, y^{11}, and vertical guides y^1, the gear y^{111}, mounted loosely on the shaft between the ears of the bracket, the clutch collar y^{1111}, connected to the shaft, movable longitudinally, and locked to rotate with the shaft, spurs z, projecting from the side of said gear and bevelled on one side, the spring bolt z^1, in the adjacent end of the clutch collar, the rod U, sliding in the vertical guide y^1, the gear U^1, journalled in the ears y^{11}, the shaft V passing freely vertically through said gear and locked to rotate with the same, a collar connected in like manner to said shaft and provided with the finger V^{11}, the cam ring V^1, attached to the top of the upper ear y^{11}, the cross bars W, W, fixed to the ends of the rods U, and provided with journalled bearings for the vertical shaft V, the duplex cam 4, and foot W^{11}, fastened to the said shaft, rubber faces W^{111}, secured to the top of the foot, the lever X, swivelled on the rod, the spring X^1, holding the said lever in contact with the cam, the sleeve 5, extending from the hub of said lever, the arm 6, secured revolubly in said sleeve, a spring pressing said arm upon the paper, a rubber block fixed to the free end of said arm, the spring finger 7, pivoted to the cross bar W, and the lever 7^a, extending from said lever and under the cam 4, all combined to operate substantially as described and sh wn.

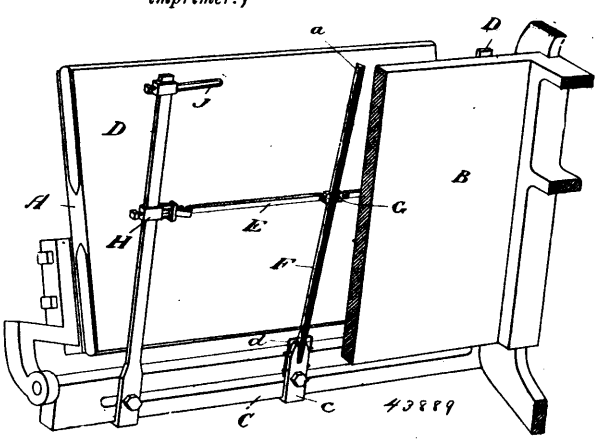
No. 43,888. Feeding Attachment to Printing Machines. (*Appareil pour fournir le papier aux presses à imprimer.*)



James Lackie Morrison, (in trust), Toronto, Ontario, Canada, assignee of Thomas A. Briggs, Arlington, Massachusetts, U.S.A., 10th August, 1893; 6 years.

Claim.—1st. On a printing machine, the combination with the main frame, of a supplemental frame hinged to one side of the feeding end of said main frame, a paper supporting table carried on said supplemental frame, a segmental track under the latter frame and concentric to the hinge thereof, and a roller connected to the supplemental frame and traversing on the aforesaid track, as set forth and shown. 2nd. On a printing machine, the combination with the main frame A, of the supplemental frame B, hinged to one side of the feeding end of the main frame and formed with a cross bar B^1, and with the socket a, in the under side of said cross bar and having vertical grooves a^1 a^1, in opposite sides of said socket, the yoke b, seated movable vertically in said grooves, the roller c, pivoted to said yoke, and the set screw d, passing through the top of the cross bar, and bearing on top of the yoke, substantially as described and shown. 3rd. The combination with the the main frame A, of the brackets C C, attached to one side of the feeding end of said frame and provided with the vertical sleeves e e, the supplemental frame B, provided with sleeves e^1 e^1, the post P, passing through the aforesaid sleeves and hinging the supplemental frame to the main frame, the base plate D, provided with the socket f, having stepped therein the post P, and formed with the track t, concentric to said socket, the roller c, mounted on said track and supporting the central portion of the supplemental frame, and the table F, connected to the post P^1, adjustably in its elevation, substantially as described and shown.

No. 43,889. Perforating Attachment for Printing Presses. (*Appareil à perforer pour presses à imprimer.*)

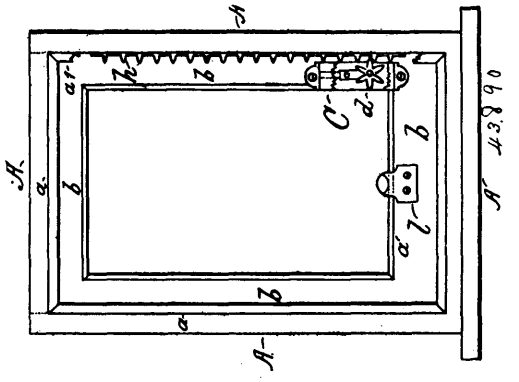


Charles T. Chauncey and Henry Peters, both of Woodbridge, Ontario, Canada, 10th August, 1893; 6 years.

Claim.—1st. A perforating blade connected to the gripper rock shaft of a printing press between the platen and bed plate, substantially

as and for the purpose specified. 2nd. A perforating blade connected to the grippers of a printing press between the platen and bed plate, substantially as and for the purpose specified. 3rd. The combination with the grippers, of a printing press provided with fingers, of a perforator fixed to the said grippers and flexibly held behind the plane of the said fingers, substantially as and for the purpose specified. 4th. The combination with the grippers, of a printing press provided with adjustable fingers, of a perforator adjustably fixed to the said grippers and flexibly held behind the plane of the said fingers, substantially as and for the purpose specified. 5th. A perforating blade flexibly connected to the gripper rock shaft of a printing press between the platen and bed plate, substantially as and for the purpose specified.

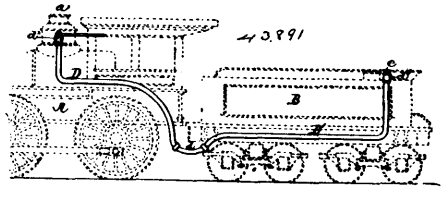
No. 43,890. Window Lock. (*Serrure de fenêtre.*)



James A. Leman, Halifax, Nova Scotia, and John W. Leman, Moncton, New Brunswick, Canada, 10th August, 1893; 6 years.

Claim.—1st. In a window lock, the combination, with the rack *h*, and the pinion *d* of the bolt *e*, substantially as and for the purpose hereinbefore set forth. 2nd. The combination, with the spring k, the knob or thumb piece *f*, and the bolt *e*, of the pinion *d*, substantially as and for the purpose hereinbefore set forth. 3rd. The combination of the frame A, and the rack *h*, substantially as and for the purpose hereinbefore set forth.

No. 43,891. Water Supplying Device for Locomotives.
(*Appareil d'alimentation de l'eau pour locomotives.*)



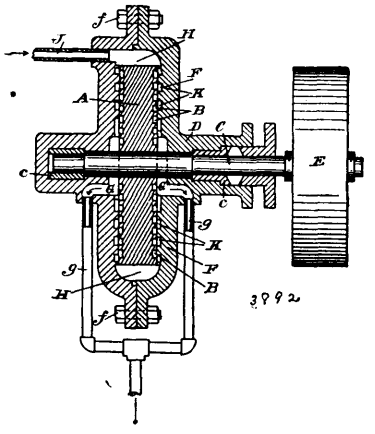
The Automatic Water Tank Company, Camden, New Jersey, assignee of Herman R. Winkelmann, Philadelphia, Pennsylvania, U.S.A., 10th August, 1893; 6 years.

Claim.—1st. The combination of the locomotive and tender, water supply inlet for the tender tank, with a steam pipe extending from the steam space of the boiler to a point adjacent to the water supply inlet of the tender tank, and a valve to regulate the flow of steam through said pipe, substantially as described. 2nd. The combination of the locomotive and tender, a water inlet for the tender tank, a steam pipe on a locomotive extending from the steam space of the boiler, a valve in said steam pipe near the steam space of the boiler, a steam pipe on the tender coupled to the steam pipe on the locomotive, said steam pipe extending to a point adjacent to the water tank inlet, a valve at this point, and a coupling at the end of the pipe, substantially as described.

No. 43,892. Rotary Engine. (*Machine rotatoire.*)

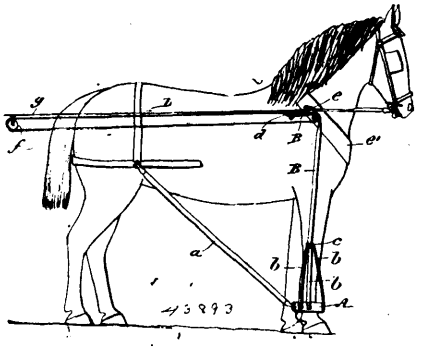
The Consolidated Car Heating Co., assignee of James F. McElroy, all of Albany, New York, U.S.A., 10th August, 1893; 6 years.

Claim.—1st. In a rotary engine, the combination of a shaft, a movable disc keyed thereto, a series of pits or pockets in the lateral surface of said movable disc, a frame in which said shaft is mounted, stationary discs attached to or forming a part of said frame, a spiral groove in the surface of the stationary discs adjacent to the movable discs with means for conveying steam to said movable disc with means for exhausting the steam therefrom, substantially as described and for the purpose set forth. 2nd. A rotary engine consisting of a movable disc keyed to a shaft, a series of pits or pockets in the lateral surface of said disc, a frame within which said shaft is suitably mounted, stationary discs arranged in said frame in such a manner that ther interior surfaces will coincide with the lateral surfaces of the movable disc, a space between the periphery of the movable disc and the interior adjacent surfaces of the stationary discs forming an annular steam chamber around the periphery of



the movable disc, a spiral groove in the stationary discs extending from the periphery of the movable disc to near the center of the stationary discs, means for communicating steam to said steam chamber, and exhaust ports near the center of the stationary discs, substantially as described and for the purpose set forth. 3rd. In a rotary engine, a movable disc, a shaft mounted in a frame, said movable disc keyed to said shaft, a series of pits or pockets in the lateral surfaces of said movable disc, said frame provided with an enclosed chamber within which said movable disc may revolve, a means for conducting steam from near the periphery of said movable disc within said chamber in a continuous spiral path around the said chamber coming in contact with the sides of the pits or pockets in the surfaces of the movable disc and exhausting at or near the center of the engine, substantially as described and for the purpose set forth. 4th. In a rotary engine, the combination of a shaft, a movable disc secured thereto, a series of pits or pockets in the lateral surfaces of said disc, a frame in which said shaft is mounted two stationary discs in said frame suitably fastened together, between which said movable disc is placed, said stationary discs provided with a means for conveying steam in a spiral path around the periphery of the movable disc to the center of the engine, a means for communicating steam to the space between the stationary discs, a means for exhausting the steam from near the center of the engine, substantially as described and for the purpose set forth.

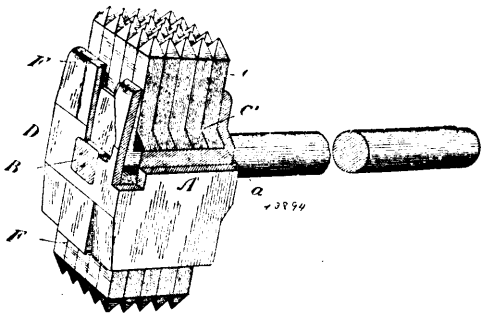
No. 43,893. Device for Preventing Horses from Running Away. (*Appareil pour empêcher les chevoux de prendre le mors aux dents.*)



Norbert Birtz and William Hewson, both of Montreal, Quebec, Canada, 10th August, 1893; 6 years.

Claim.—1st. A device for preventing horses from running away, consisting of a retaining hopple movable up and down the horse's leg with means within handy reach of the driver for controlling same. 2nd. A device for preventing horses from running away, consisting of a retaining hopple movable up and down the horse's leg, and a strap or line attachment extending from such hopple to within handy reach of the driver for controlling same. 3rd. A device for preventing horses from running away, consisting of a retaining hopple, comprising anklet and strap, and endles reciprocal band having sliding connection with carrying part of the horse's harness, and a suspending strap connected respectively to said reciprocal band and the hopple, as set forth. 4th. In a device for preventing horses from running away, the combination with the hopple A, free to be moved up and down the horse's leg, and the retaining strap *a*, of the endless strap D and points of attachment, as pulley *f* and eye *e*, allowing sliding connection with parts of the horse's harness, and strap B, suitably connected to the hopple and to the strap D, as set forth.

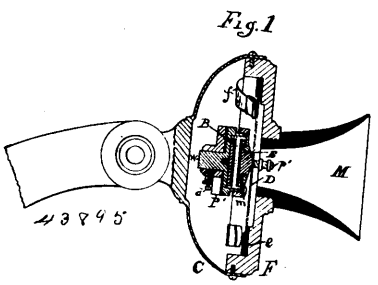
No. 43,894. Bush Hammer. (*Laie.*)



James O'Donnell and Charles Watson, Toronto, Ontario, Canada, 10th August, 1893; 6 years.

Claim.—1st. A series of bush hammer teeth C, bent at C^1, substantially as and for the purpose specified. 2nd. A bush hammer casing A, having a dovetail *a*, formed on one side of the said casing, substantially as and for the purpose specified. 3rd. As an improved bush hammer, a casing designed to hold a series of pointed teeth bunched together and held in position by means of a wedge, substantially as and for the purpose specified. 4th. A casing A, having a dove tail *a* formed on one side of it, a series of teeth C, each tooth bent at C^1, and arranged in a bunch to fit together and into a dovetail *a*, in combination with the wedge D and handle E, substantially as and for the purpose specified.

No. 43,895. Telephone. (*Téléphone.*)



The Bell Telephone Company of Canada, Montreal, Quebec, Can., assignee of The American Bell Telephone Company, assignee of Anthony C. White, both of Boston, Massachusetts, U.S.A., 10th August, 1893; 6 years.

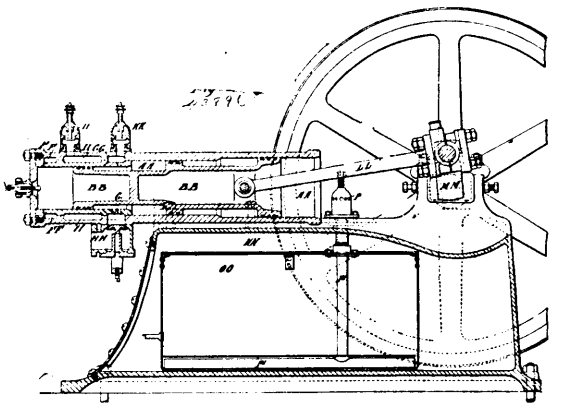
Claim.—1st. The combination with the sound receiving diaphragm D, and a supporting frame therefor, of the independently supported heavy chambered block W, and electrode B secured thereto, the flexible disk *m*, and piston electrode E carried thereby, and the finely divided conducting material within the chamber in said block and extending about the periphery of said piston electrode E, substantially as described. 2nd. In a granular button for a transmitting telephone, the combination with the heavy chambered block W, electrodes B and E, and finely divided conducting material P, of the mica spring disk *m*, carrying the electrode E, and confining said granulated material within the chamber in said block W, substantially as described.

No. 43,896. Hydro-carbon Motor.

(*Moteur à hydro-carbures.*)

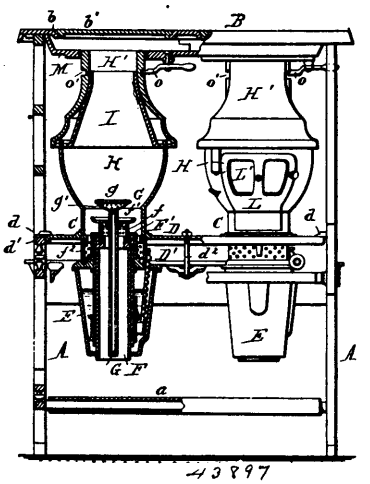
James Martin, assignee of John Edward Friend, both of Gawler, South Australia, 11th August, 1893; 6 years.

Claim.—1st. A hydro-carbon motor, having two cylinders, the ends of which are closed and fitted with pistons having two diameters, whereby the combustion chamber of one cylinder is supplied with a charge of explosive gas by means of the piston in the large end of the other cylinder, and *vice versa*, substantially as herein described and set forth, reference being had to the accompanying drawings. 2nd. A hydro-carbon motor, having one cylinder, of the diameters, one end only being closed, and fitted with a piston, the large end of which supplies the charge of explosive gas to the combustion chamber of the piston, substantially as herein described and set forth, reference being had to the accompanying drawings. 3rd. In a hydro-carbon motor, a cylinder, having air spaces surrounding the combustion chamber and other parts liable to become heated, in combination with a piston adapted to pump air through the said air spaces, which are provided with suitable inlet and outlet valves, substantially as herein described and set forth, reference being had to the accompanying drawings. 4th. A hydro-carbon motor, having a vapouriser fitted with an inlet valve and pipe, and a filter bed consisting of layers of pumice stone or other spongy material, alternated with layers of wool placed over such air inlet pipe, the



whole being constructed and arranged, substantially as herein described and set forth, reference being made to the accompanying drawings.

No. 43,897. Oil Stove (*Poêle à huile.*)



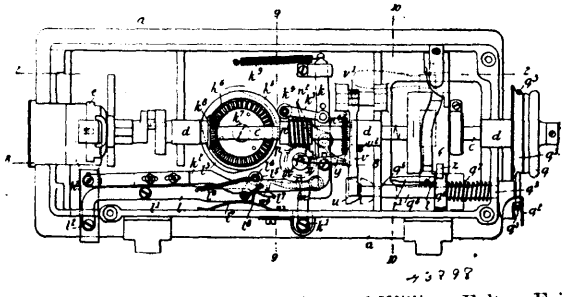
Abraham Q. Allis, Henry T. Wurth and Thomas H. Flynn, all of Prattsburgh, New York, U.S.A., 11th August, 1893; 6 years.

Claim.—1st. The combination with the burner and the stove top, of a chimney containing a lower part, having an outwardly turned top flange, provided with air inlet openings, and a top part resting with its lower end upon said flange outside of said air inlet openings, and a top part resting with its lower end upon said flange outside of said air inlet openings, substantially as set forth. 2nd. In an oil stove, the combination with the burner and the stove top, of a chimney composed of a lower part, an upper part having its lower end arranged outside of the top of the lower part and separated therefrom by an air inlet passage, and an internal deflector arranged within the upper part and having its lower end arranged inside of the top of the lower part and separated therefrom by an air inlet passage, substantially as set forth. 3rd. In an oil stove, the combination with the stove top and a burner arranged underneath the same, of a chimney for the burner, composed of a lower part, provided at its upper end with a flange, having air openings, an upper part communicating with the stove top and resting on the lower part, and a deflector arranged in the chimney, whereby the air entering the chimney through the openings in the flange of the lower part is directed downward, substantially as set forth. 4th. In an oil stove, the combination with the stove top, and a burner arranged underneath the same, of a chimney for the burner, composed of a lower part, provided at its upper end with a flange, having air openings, an upper part communicating with the stove top and supported on the lower part, and an annular deflector arranged in the chimney and provided with a flange arranged below the flange of the lower chimney section and provided with air openings, substantially as set forth. 5th. The combination, with the burner and the stove top, of a supporting plate, provided with ways, in rear of the burner, a lower chimney section capable of being moved rearwardly on said ways and provided with a door which, when open, allows the lower section to be moved past the burner, and an upper chimney section suspended in the stove top and capable of

being lifted from the lower section, substantially as set forth. 6th. The combination, with the oil fount and chimney, of a burner, having a circular wick tube, an air supply passage inside of the wick tube and provided above the latter with an imperforate deflector and below the deflector with openings through which the air issues outwardly against the root of the flame, and an internal air supply tube extending upwardly through said imperforate deflector and provided above the same with a distributing head, having a closed top and below said top, openings, through which the air issues outwardly against the inner side of the flame above said imperforate deflector, substantially as set forth. 7th. In an oil stove, the combination with the hollow stove top, provided with front and rear utensil holes, of horizontally swinging dampers arranged in the stove top and attached at their inner ends to a vertical pivot arranged between the two sets of utensil holes, substantially as set forth.

No. 43,898. Button Hole Finishing Machine.

(*Appareil à finir les boutonnières.*)



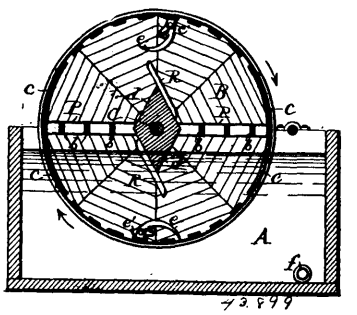
Isaac Lovell Berridge, Leicester, assignee of William Fulton Fair, London, England, 11th August, 1893; 6 years.

Claim.—1st. The combination with a sewing machine, of mechanism for finishing button holes, and change wheels arranged in such a manner as to regulate the number and closeness of the stitches made by the machine, substantially as hereinbefore described. 2nd. The combination of the clamp traversing cams k^5 and l^3, and the governing cams m, n and o, and the levers operated thereby with the driving shaft c, and gear intermediate between the driving shaft and the cams, in such a manner that by changing the worm wheel p and worm p^2, the number and closeness of the stitches may be regulated, substantially as described. 3rd. In a button hole finishing machine, the combination with the work holding clamp of a stop or guide such as i, operated by the movable jaw of the said clamp in such a manner that when the clamp is opened for the insertion of the work the said stop or guide will be moved into position for ensuring the button hole to be finished being in its proper position relatively to the needle, and that when the said clamp is closed the said stop or guide will be moved out of the path of the needle, substantially as described. 4th. In a button hole finishing machine having a work holding clamp adapted to be moved in one direction to apply a series of long stitches, and then in another direction to apply a series of overlying stitches, the combination with the said clamp of levers having pivoted arms acted upon by peripheral cams (such k^5, l^3), and arranged in conjuction with other peripheral cams (such as m, n), whereby the said arms are alternately moved into and out of contact with the main operating cams, substantially as described. 5th. In a button hole finishing machine, the combination with the operating parts which give the motions of the clamp necessary for the application of the long stitches, of a cam such as o, for giving the motions of the clamp necessary for the application of the overlying stitches through the medium of the same intermediate parts, substantially as described. 6th. In a button hole finishing machine having a work holding clamp operated in one direction to apply a series of long stitches, and then in another direction to apply a series of overlying stitches, a belt shifting fork attached to a rod sliding in guides and adapted to be held in one position with the belt upon the fast or driving pulley of the machine by means of a pivoted lever engaging with a catch or collar upon the said rod, and to be released so that a spring may move the rod to shift the belt on to the loose pulley by means of a cam or projection secured to a wheel designed to make one complete revolution during the time that the necessary number of stitches for finishing a button hole is being applied, substantially as described. 7th. In a button hole finishing machine having a work holding clamp designed to be operated as described, and having a belt shifting fork fixed to a sliding bar, the arrangement upon a cam or disc upon the main driving shaft, of a tooth adapted when the said bar is shifted to impinge against a collar which is at the same time thrown into the path of said tooth, substantially as and for the purpose described.

No. 43,899. Dyeing Machine. (*Machine à teindre.*)

The Klander-Weldon Dyeing Machine Company assignee of Leonard Weldon, Amsterdam, all of New York, U.S.A., 11th August, 1893; 6 years.

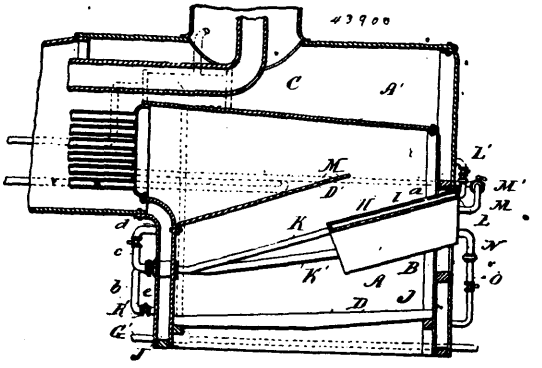
Claim.—1st. In combination with the vat, the rotary cage divided into compartments by radial partitions, and longitudinal ribs in the compartments extending from the axis of the cage toward the periphery thereof and forming at the latter throats for the passage of



the material in process of being dyed, as set forth. 2nd. In combination with the vat, the rotary cage divided into compartments by radial partitions, longitudinal ribs in the compartments extending from the axis of the cage toward the periphery thereof, and horns projecting from the ribs part way toward the periphery of the cage, as set forth. 3rd. In combination with the vat, the rotary cage divided into compartments by radial partitions, longitudinal ribs in the compartments extending from the axis of the cage toward the periphery thereof, horns projecting from the ribs part way toward the periphery of the cage, and hooks projecting inward from the periphery of the cage as set forth. 4th. In combination with the vat, the rotary cage divided into compartments by radial partitions, horns projecting from the central portion of the cage part way toward the periphery thereof, hooks pivotally suported at the peripheral portion of the cage, and braces sustaining the hooks in their inward projecting position above the vat, as set forth. 5th. In combination with the vat and the rotary cage divided into compartments by radial partitions, the hooks e pivoted to the interior of the cage and provided with shoulders e^1, substantially as and for the purpose set forth.

No. 43,900. Fire Box and Steam Boiler.

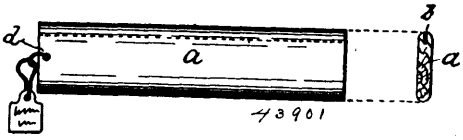
(*Boîte à feu et chaudière à vapeur.*)



Charles Wessley Hullings and John William Thatcher, both of Philadelphia, U.S.A., 11th August, 1893; 6 years.

Claim.—1st. The combination with the boiler, and the fire box having a fuel opening, of the arched hollow deflector or baffler, extending through the upper part of said opening, a series of lead pipes communicating with the inner portion of said baffler and detachably connected at their forward ends with pipes communicating with mud legs, and with the boiler, and detachable pipe connections between the outer end portion of said baffler and the boiler and mud legs, substantially as specified. 2nd. In a steam boiler, the combination with the fire box having the fuel opening therein, of the deflector or baffler extending through the upper part of said fuel opening, said deflector or baffler having a water chamber therein, and lead pipes to and from said chamber, whereby a circulation is maintained therethrough, substantially as specified.

No. 43,901. Cloth Board. (*Planchette à drap.*)



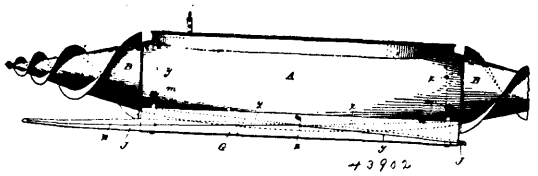
Aaron Lucas, Poquetannoe, Connecticut, U.S.A., 11th August, 1893; 6 years.

Claim.—1st. A cloth board of the class herein referred to having a longitudinal slit in one edge, substantially as and for the purpose

specified. 2nd. A cloth board having a longitudinal slit in one edge thereof, one of the side walls of said slit being slightly shortened, substantially as and for the purpose specified. 3rd. A cloth board having in one longitudinal edge thereof a slit to receive the end of the cloth and also provided with a perforation to receive a tag string, as set forth.

No. 43,902. Boat and Means of Propelling.

(*Bateau et moyen de propulsion.*)



Auguste Marty and Rene Jammin Lecomte, both of New York, State of New York, U.S.A., 11th August, 1893; 6 years.

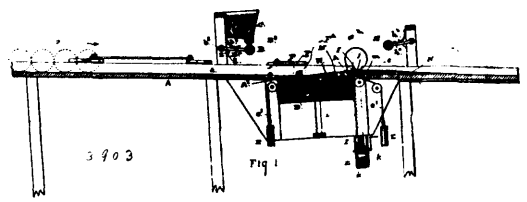
Claim.—1st. The combination of a boat hull, propellers carried thereby, and means substantially as described, for converting the oscillation of the boat into power for moving the propellers, substantially as specified. 2nd. The combination of a boat hull, propellers carried thereby, mechanism adapted to be held comparatively stationary with relation to the hull of the boat, whereby the oscillation of the boat hull can be converted into power for operating the propellers, substantially as specified. 3rd. The combination of a boat hull, propellers carried thereby, mechanism adapted to be held by the water in a comparatively stationary manner with relation to the oscillation of the hull of the boat whereby a movement of the hull of the boat with relation to the said comparatively stationary mechanism, will cause the propellers to be operated, substantially as specified. 4th. The combination of a boat hull A, propellers B carried thereby, main driving shaft C, frame F held comparatively stationary with relation to said boat hull, and means substantially as described, connected to said frame F, for utilizing the oscillation of the hull with relation to the frames F, for operating the propellers B, substantially as specified. 5th. The combination of a boat hull A, propellers B carried thereby, main driving shaft C, frame F, and chains *n*, *o*, connected to said frame and to suitable ratchet gears for operating the main driving shaft, substantially as described and for the purposes specified. 6th. The combination of gears *q*, *r*, having pawls *v*, *w*, v^x, w^x thereon, ratchet wheels *s*, *t*, *u*, adapted to form bearings for said gears *q*, *r*, and to be engaged by said pawls, and means substantially as described for operating said gears, substantially as and for the purposes specified. 7th. The combination of a boat hull A, propellers B carried thereby, main driving shaft C, frame F, wings G and sprocket wheels *n*, *o*, connected therewith, sprocket gears *q*, *r*, connected to said chains, ratchet wheels *s*, *t*, *u*, adapted to be operated by said sprocket gears, and means substantially as described for operating the propellers B from said ratchet wheel, substantially as and for the purposes specified. 8th. The combination of boat hull A, propellers B carried thereby, main driving shaft C, frame F comparatively stationary with relation to the oscillations of said hull A, means substantially as described for propelling the main driving shaft by the movement of the hull with relation to said frame, and multiple gear interposed between said propelling mechanism and the main driving shaft, substantially as and for the purposes specified. 9th. Steering mechanism for boats, consisting of flexible steering blades J, J, adapted to slide from end to end, and ropes *x*, *y* attached to the ends thereof, substantially as described and for the purposes specified. 10th. The combination of the anti-friction ball 19 in one plane transverse to the axis of the shaft, a series of balls 18 in a different transverse plane from that of the ball 19, and adapted to impinge thereon, raceway 16 for containing said balls, and shaft I, all arranged so that both an endwise and lateral anti-friction bearing is had, substantially as described. 11th. The combination of the anti-friction ball 19, in one plane transverse to the axis of the shaft, two series of balls 18 in different transverse planes from that of the ball 19, and adapted to impinge on opposite sides thereof, raceway 16 for containing said balls, and shaft I, all arranged so that both an endwise and lateral anti-friction bearing is had, substantially as described. 12th. The combination of a bearing, having a substantially conical shaped race, balls contained within said race, and a journal provided with a substantially conical shaped lugs adapted to be supported by said balls, as and for the purposes set forth.

No. 43,903. Can Labelling Machine.

(*Machine à étiqueter les boîtes en métal.*)

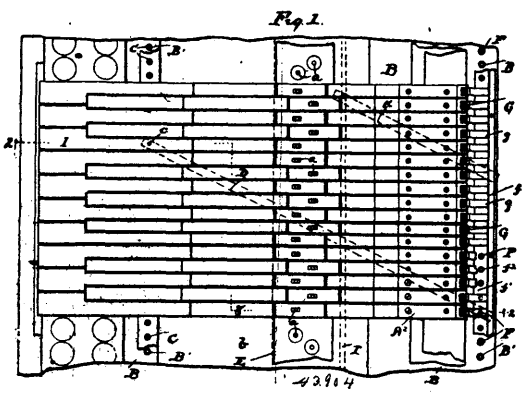
The Automatic Gravity Labelling Company, assignee of Charles E. Newell, all of San Francisco, California, U.S.A., 11th August, 1893; 6 years.

Claim.—1st. In a can labelling machine, the combination, with an inclined runway on which the cans run by gravity, of the stops R R, and the tripping stops R^1, located at a distance below said stops R in the path of the cans and having connection with said stops, whereby the foremost descending can by contact with the tripping stops operates on the stops R to release the next can, substantially as hereinbefore described. 2nd. In a can labelling machine, the combination, with an inclined runway, of a can pasting roller adapted to apply a coating of paste to the body of the can, a label



feeding bed arranged in the runway and presenting a label flatwise in position to be taken up by the paste coated surface of the can, and to be wrapped by rolling contact of the can and an auxiliary pasting device consisting of a belt arranged to travel transversely across the runway just beyond and at a higher level than the lower end of the label bed and adapted by its form and positon to apply a line or strip of paste across one end of the label before the opposite end is brought over and pressed against it to finish the lap, substantially as hereinbefore described. 3rd. In a can labelling machine, the combination, with a label feeding bed and an inclined runway by which the cans are carried over the bed in contact with the label thereon, of a lap pasting device consisting of a paste supply trough and an endless paste carrying transversely moving belt receiving a supply of paste therefrom and located just beyond and at a higher level than the end of the label at the lower end of the label bed in the path of the rolling can, and at such a distance from the upper end of the label bed, that the end of the label first taken up is brought by the rolling motion of the can directly against the said paste belt before the opposite end of the label is brought against the can and pressed down to complete the lap. 4th. In a can labelling machine, the combination, with an inclined runway and a label feeding bed therein, of the lap pasting belt I, presenting a paste bearing surface across the path of the rolling can in position for contact with the surface of the label at the end, and the spring flangers arranged to lie over the lap pasting belt for operation as set forth.

No. 43,904. Pianoforte. (*Pianoforte.*)



The A. B. Chase Company, assignee of Hartwell Rolland Moore, all of Norwalk, Ohio, U.S.A., 11th August, 1893; 6 years.

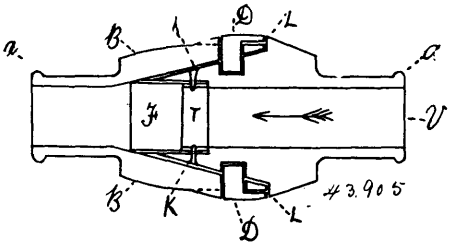
Claim.—1st. In a pianoforte, the combination with the mechanisms for actuating two hammers of the action of the instrument and key for actuating one of said hammer actuating mechanisms, of a lever located below said key, suitable means for operating said lever, adapted to be actuated by the key, and suitable means adapted to be actuated by said lever and adapted to actuate the other hammer actuating mechanism, substantially as set forth. 2nd. In a pianoforte, the combination with the mechanism for actuating two hammers of the action of the instrument and key for actuating one of said hammer actuating mechanisms, of a tiling lever, a pin or rod for operating said lever, adapted to be actuated by the key, and a pin or rod adapted to be actuated by said lever and adapted to actuate the other hammer actuating mechanism, substantially as set forth. 3rd. In a pianoforte, the combination with the mechanisms for actuating two hammers of the action of the instrument, and a key for actuating one of said hammer actuating mechanisms, of a tilting lever below the key, a pin or rod adapted to be actuated by the key and adapted to actuate said lever, a pedal, and suitable means operatively connected with the pedal for shifting the aforesaid lever and pin or rod into or out of an operative position, and suitable means adapted to be actuated by said lever, and adapted to operate the other hammer actuating mechanism, substantially as and for pupose set forth. 4th. In a pianoforte, the combination with the keys, and hammer actuating mechanisms adapted to be actuated by said keys, of a bar extending in the direction of the length of the instrument, swinging levers arranged parallel with each other and pivotally connected to said bar, said swinging levers being normally inoperative

and the keys being adapted to actuate respectively, the actuating mechanism of a single hammer, a pin or rod for actuating each of the aforesaid swinging levers and adapted to be actuated by a key, suitable means adapted to be actuated by said levers and adapted to actuate hammer actuating mechanism other than that adapted to be actuated directly by the key adapted to effect the operation of said lever, a pedal, and suitable means operatively connected with said pedal for shifting the aforesaid bar to bring the aforesaid swinging levers into an operative position, substantially as set forth. 5th. In a pianoforte, the combination with the keys, and hammer actuating mechanisms adapted to be actuated by said keys, of a bar extending in the direction of the length of the instrument, swinging levers arranged parallel with each other and pivotally connected to said bar, the keys being adapted to actuate respectively the actuating mechanism of a single hammer, and the arrangement of parts being such that said swinging levers are normally inoperative, a pin or rod for actuating each of the aforesaid swinging levers, and adapted to be actuated by a key, suitable means adapted to be actuated by said levers, and adapted to actuate a hammer actuating mechanism other than that adapted to be actuated directly by the key adapted to effect the operation of said lever, a pedal, and suitable means operatively connected with said pedal for shifting the aforesaid bar to bring the aforesaid swinging levers into an operative position, and a stop for limiting the return movement of said shifting bar and swinging levers in assuming their normal position, substantially as set forth. 6th. In a pianoforte, the combination with the key board and hammer actuating mechanism adapted to be actuated by the keys of the key board, the keys being adapted to actuate, respectively, the actuating mechanism of a single hammer, of a bar located below the key board and extending in the direction of the length of the instrument, swinging levers arranged parallel with each other and pivotally connected to said bar, said swinging levers being normally inoperative, suitable means for actuating each of the aforesaid swinging levers and adapted to be actuated by a key of the key board, suitable means adapted to be actuated by said levers and adapted to actuate a hammer actuating mechanism other than that adapted to be actuated directly by the key adapted to effect the operation of said lever, a pedal and suitable means operatively connected with said pedal for shifting the aforesaid bar to bring the aforesaid swinging levers into an operative position, substantially as set forth. 7th. In a pianoforte, the combination with the keys, and hammer actuating mechanisms adapted to be actuated by said keys, of a wooden bar, extending in the direction of the length of the instrument, swinging levers arranged parallel with each other and pivotally connected to said bar, the keys being adapted to actuate, respectively, the actuting mechanism of a single hammer and the arrangement of parts being such that said swinging levers are normally inoperative, a pin or rod for actuating each of the aforesaid swinging levers and adapted to be actuated by a key, suitable means adapted to be actuated by said levers and adapted to actuate a hammer actuating mechanism other than that adapted to be actuated directly by the key adapted to effect the operation of said lever, a pedal, and suitable means operatively connected with said pedal for shifting the aforesaid wooden bar, to bring the aforesaid swinging levers into an operative position, said wooden bar being at one edge or side faced with a metallic strip or bar, substantially as and for the purpose set forth. 8th. In a pianoforte, the combination with the mechanisms for actuating two hammers of the action of the instrument, key bottom and key for actuating one of said hammer actuating mechanisms, of a tilting or swinging lever D, below the key bottom, a vertically movable pin or rod C, extending through the key bottom, for actuating said lever, the key having a stud or member A^1, for engaging and depressing said pin or rod, a vertically movable pin or rod F, adapted to be actuated by said lever and adapted to operate the other hammer actuating mechanism, levers D and pins or rods C and F being normally inoperative, a pedal and suitable means operatively connected with the pedal for shifting said lever and pin or rods C and F into an operative position, substantially as set forth. 9th. In a pianoforte, the combination with the mechanisms for actuating two hammers of the action of the instrument, key bottom, and a key for actuating one of said hammer actuating mechanisms, of a tilting or swinging lever D, below the key bottom, a vertically movable rod C extending through the key bottom for actuating said lever, the key having a stud or member A^1, for engaging and depressing said pin or rod, a vertically movable pin or rod F, adapted to be actuated by said lever and adapted to operate the other hammer actuating mechanism, and a guide for the upper end of said pin or rod F, substantially as set forth.

No. 43,905. Hose Coupler. (*Joint de boyaux.*)

James Gates and George Reid, both of Sombra, and Winfield Scott Wooliever, Wallaceburg, all in Ontario, Canada, 11th August, 1893; 6 years.

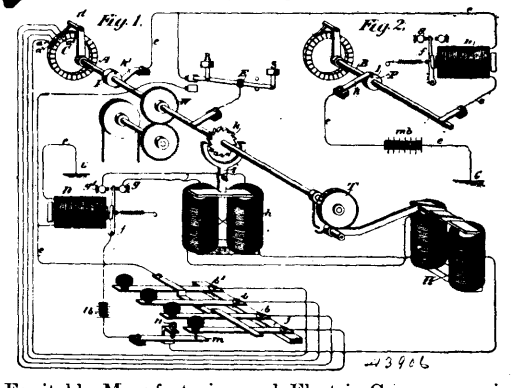
Claim.—1st. In a hose coupling, the combination of the semi circular hoop or spring E, having the locking bars D, D, with the casting B, having the slots C, C, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the tubing F, and the metal hoop or ring T, with the casting V, having the shoulder or ridge L, and the groove G, for receiving the locking



bars D, D, substantially as and for the purpose hereinbefore set forth.

No. 43,906. Printing Telegraph.

(*Télégraphe imprimant.*)

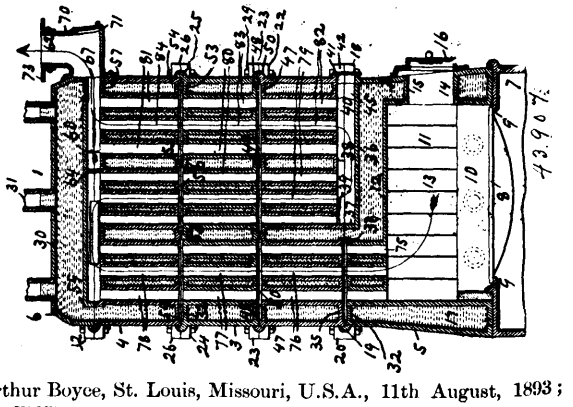


The Equitable Manufacturing and Electric Company, assignee of Henry Van Hoevenbergh, all of New York, U.S.A., 11th August, 1893; 6 years.

Claim.—1st. In a printing telegraph, the combination, with a main line circuit, of a step by step transmitter organized to drop or intermit one of a series of breaks or impulses, and a receiving instrument organized to supply the break or impulse omitted by the transmitter, substantially as set forth. 2nd. In a printing telegraph, the combination, with the main line circuit, of a step by step transmitter, organized to drop or intermit one of a series of impulses or breaks, a receiving instrument organized to supply the break or impulse omitted by the transmitter, and means, substantially such as described, for rotating the receiving instrument independently of the transmitter, substantially as set forth. 3rd. The combination, with the main circuit *c*, *e*, of the key *j*, locking segment a^2, electrically connected therewith, trailer *d*, break wheel I, contact spring *k*, and electro-magnet *h*, substantially as set forth. 4th. The hereinbefore described method of effecting the unison of the transmitting and receiving parts of a printing telegraph, which consists in first locking the transmitting shaft at a predetermined point in its revolution, then advancing the type-wheel shaft of the receiving instrument until the type wheel has been brought to the corresponding point, and finally releasing the transmitting shaft by the action of said type wheel shaft, substantially as set forth.

No, 43,907. Steam Boiler or Water Heater.

(*Chaudière à vapeur ou calorifère.*)

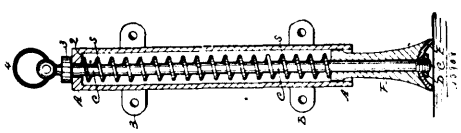


Arthur Boyce, St. Louis, Missouri, U.S.A., 11th August, 1893; 6 years.

Claim.—1st. An improved steam boiler or water heater constructed with an exterior casing composed of sections, each of said

sections provided with projecting lugs, and adjacent lugs upon the next section, said adjacent lugs secured together by bolts, inlet pipes leading into the lower base section adjacent the fire chamber located therein, outlet pipes leading from the top of the heater, the walls of the fire chamber located in the base section corrugated to present additional heating surface to the water circulating around the same, inwardly projecting plates at the top and bottom of each of said sections, and a series of pipes connecting said plates, forming passages to allow the circulation of the heat and the passage of smoke, substantially as set forth. 2nd. An improved steam boiler or water heater comprising a number of sectional rectangular shaped frames mounted upon and bolted to each other upon a base section, a soot chamber formed by inwardly projecting plates of the same width as the heater, projecting flanges upon the extremities of said plates to form said chamber, said plates cast with adjoining sections, a similarly constructed smoke chamber adjacent the top of a heater, pipes leading to and connecting said plates and forming passages for the functions of the smoke and heat to increase the temperature of the water circulating around said pipes and plates, and a number of inlet and outlet pipes connecting with said heater for the circulation of the heated water or steam throughout a building, substantially as set forth. 3rd. An improved steam boiler or water heater built in sections located one above the other upon a base section, each of said intermediate sections having a top and bottom plate provided with openings for the passage of the water through one chamber to the other, said chambers formed by said plates, and pipes leading to and connecting with each of said plates, and forming passages for the heat generated in the fire chamber, said pipes being arranged in vertical series across the entire width of the heater, substantially as set forth. 4th. An improved steam boiler or water heater built in sections one above the other, upon a base section, a cap section surmounting the upper intermediate sections, said intermediate sections constructed with a top and bottom plate provided with openings for the passage of the water, pipes cast integrally with said plates and forming continuous series of passages through the heater, when said sections are in position, substantially as set forth. 5th. An improved steam boiler or water heater having a series of chambers located one above the other, plates formed with sectional casings and separating said chambers, pipes connecting said plates and forming continuous passages from the fire chamber upwardly to a heating chamber, thence downwardly to a soot chamber and upwardly to the smoke outlet, said pipes heated by the combustion of materials located in the said fire chamber, grate bars located in the base section, an ashes chamber under said grate bars, a firing enterance to said fire chamber, the walls of said fire chamber corrugated to present additional heating surface, and the heated surface presented throughout the heater adapted to increase the temperature of the water circulating around the heated parts and elevate the same through the outlet pipes, substantially as set forth.

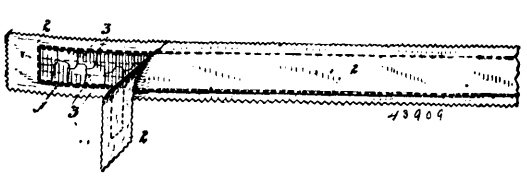
No. 43,908. Door Holder. (*Arrête-porte.*)



Christian Kerner, Hamilton, Ontario, Canada, 11th August, 1893; 6 years.

Claim.—1st. The vertical rod C, having enlargement, concaved out at its lower end to receive the flexible or rubber washer E, and nut D, substantially as and for the purpose hereinbefore set forth. 2nd. In a door holder, the combination of the case A, having lugs B, and shoulder 2, the vertical rod C, supplied with concaved enlargement F, flexible washer E, nut C, spiral springs, collar 3, and ring 4, substantially as and for the purpose hereinbefore set forth.

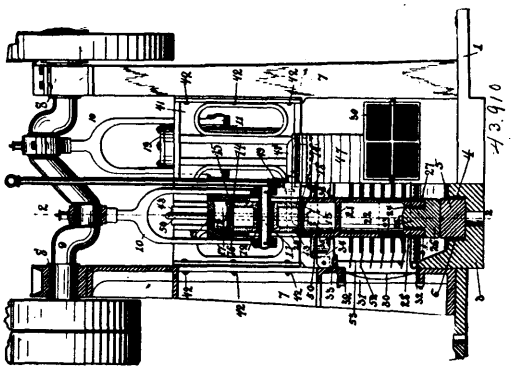
No. 43,909. Corset and Dress Stay.
(*Corset et busc de corset.*)



Charles S. Cole, Bridgeport, Connecticut, U.S.A., 11th August, 1893; 6 years.

Claim.—1st. A corset or dress stay composed of fish scales secured to each other with their edges overlapping, substantially as described. 2nd. A corset or dress stay consisting of a series of overlapping fish scales laid together in the form of a strip, said scales being secured together by stitching, substantially as described. 3rd. A corset or dress stay consisting of a series of overlapping fish scales secured to each other in the form of a strip, and a casing of textile material, substantially as described.

No. 43,910. Ore Stamp. (*Appareil à broyer le minerai.*)



John Wesley Marshall, Brooklyn, New York, U.S.A., 12th August, 1893; 6 years.

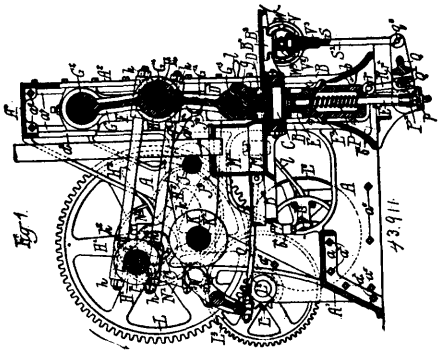
Claim.—1st. An ore stamp or mill when constructed as follows, namely, when containing the combination with the coffer, and the upright screens which surround the coffer in immediate proximity to the stamp for regulating the passage of the ore pulp from the coffer, of a pipe having spray orifices directed towards the bases of said screens, and adapted to keep the latter clear and ready for the passage of the pulp by washing the material which will not pass the screens back into the coffer, and thereby preventing said material from banking against the screens, substantially as set forth. 2nd. The combination with the coffer, and screens for regulating the passage of the ore pulp therefrom, of a spray pipe within the coffer and adapted to act on the material banked against the screen, and keep said screens clear and ready for the passage of the pulp, substantially as set forth. 3rd. The combination in an ore stamp, with the coffer, and screens 30, of the spray pipe 51, situated within the ore receptacle at the base of said screens, substantially as set forth. 4th. The combination with the stamp proper, of a sleeve having an amalgamated surface, and mounted on the stamp above the shoe, substantially as set forth. 5th. The combination with the stamp proper having the recess or rabbet 23, of the amalgamated plate or sleeve 28 and the shoe 26, substantially as set forth. 6th. The combination with the coffer and the stamp proper, of a pneumatic cylinder and piston connected with the the upper end of the stamp, a coffer cover surrounding the stamp, and a supplemental flange on said cover and around the stamp and adjustable on said cover towards the stamp and operating to prevent particles of ore from the coffer from passing upwards at the sides of the stamp to said pneumatic devices, substantially as set forth. 7th. The combination in an ore stamp with the coffer and the stamp proper, of the coffer cover surrounding the stamp, guides for the latter, and adjustable gibs 43 in said guides having the slotted flanges 44 and bolts 45, substantially as set forth. 8th. The combination of a pneumatic cylinder and piston connected with the stamp proper, said piston being provided with annular rabbets or grooves, and a plurality of split metallic rings seated in said grooves, one resting on the other, substantially as set forth. 9th. The amalgamated plates 52 combined with the coffer and the screens 30 and situated within the space enclosed by said screens and in the path of the pulp as it passes to and through said screens, and the spray pipe 51 in proximity to said screens and plates, and adapted to clear the same, substantially as set forth. 10th. In an ore stamping or pulverizing mill, the combination with the coffer or stamping chamber having a discharge opening, of a grille having amalgamated surfaces and removably fastened within said coffer at such point as will be in the path of the pulverized material as it is discharged, so as to intercept the metallic particles, substantially as set forth. 11th. In an ore stamping machine or mill, a grille formed of a series of amalgamating plates supported in front of or near the discharge opening of the coffer so as to move or vibrate under the impact of the material which is stamped, substantially as set forth. 12th. The amalgamating grille or grating herein described consisting of a series of parallel inclined plates, and supporting rods whereby the same may be suspended from either end, substantially as set forth. 13th. An amalgamating grille or grating, consisting of a series of plates 52 having notched ends, and side bars 69 having projections for supporting the plates, substantially as set forth. 14th. The amalgamated plates 52 combined with the coffer and screens 30 and situated within the space enclosed by said screens and the path of the pulp as it passes to and through said screens, substantially as set forth.

No. 43,911. Brick Press. (*Presse à brique.*)

Bruce Clark White, Chicago, Illinois, U.S.A., 12th August, 1893; 6 years.

Claim.—1st. The combination, with a mould and plungers working therein, of means for actuating the plungers, embracing a toggle connected with the opposite plungers, and a crank shaft the crank pin of which is connected with the middle joint of the toggle arms, and the crank arms of which constitute cams adapted to lift and

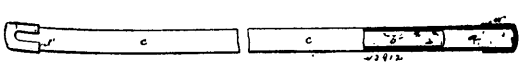
lower the said plungers and connected parts. 2nd. The combination, with a mould and upper and lower plungers, of a toggle for



actuating the same, side bars connecting the lower plunger with the toggle, a crank shaft connected with and actuating the toggle, and lifting levers engaging the said side bars at points between their ends and the arms of said crank shaft, which latter is provided with cam surfaces adapted to engage and actuate said lifting levers, substantially as described. 3rd. The combination, with a mould and upper and lower plungers, of a toggle for actuating the same, side bars connecting the lower plunger with the toggle, a crank shaft connected with and actuating the toggle, and lifting levers acting on the said side bars at points between their ends and engaged with the arms of said crank shafts, which latter are provided with cam surfaces adapted to actuate said lifting levers, and studs secured in said bars and extending laterally therefrom for engagement with the lifting levers, substantially as described. 4th. The combination, with a mould and upper and lower plungers, of a toggle for actuating the same, side bars connecting the lower plunger with the toggle, a crank shaft connected with and actuating the toggle, lifting levers acting on the said side bars and engaging the arms of said crank shaft, which latter are provided with cam surfaces adapted to actuate the said lifting levers, and sleeves or rings on the studs provided with one or more grooves or notches, the said lifting levers being provided with transverse bearing surfaces adapted for engagement with said notches or grooves, substantially as described. 5th. The combination, with a mould table and upper and lower plungers, of a toggle for actuating the same, the central joint of which consists of interpenetrating parts provided with cylindric bearing apertures uniform in diameter and with convex and concave segmental bearing surfaces concentric with the bearing apertures, and arranged in contact with each other, and a straight cylindric bearing pin inserted through said bearing apertures, the toggle members being provided with detachable bearing blocks upon which are formed the said concave bearing surfaces, said bearing blocks being provided with projections or ribs arranged parallel with the axis of the said bearing pin and engaging the main parts of the toggle member, whereby said bearing blocks may be removed endwise from engagement with the toggle members, substantially as described. 6th. The combination, with a mould of upper and lower plungers sliding therein, a cross head for supporting the lower plunger, a spring or counterbalance weight sustaining the lower plunger yieldingly on the cross head, a cross bar sliding in vertical guide-ways below the said cross head, and a stem connecting the said lower plunger with the said cross head and passing through head, said cross head being provided with apertures for the passage of the stem larger than the latter so as to admit of lateral displacement of the cross head without disturbing the position of the lower plunger, substantially as described. 7th. The combination, with a mould of upper and lower plungers sliding therein, a cross head for supporting the lower plunger, a spring or counterbalance weight sustaining the lower plunger yieldingly on the cross head, a cross bar sliding in vertical guide-ways below the said cross head, a stem connecting the said lower plunger with the said cross bar, and a lever pivotally connected with said cross bar, and engaged with a fulcrum upon the machine frame, said lever being adapted for contact with a part of or upon the lower cross head which limits the upward movement of the lower plunger at the time of filling the mould, substantially as described. 8th. The combination, with a mould of upper and lower plungers sliding therein, a cross head for supporting the lower plunger, a spring or counterbalance weight sustaining the lower plunger yieldingly on the lower cross head, a lever connected with the lower plunger, and having a fulcrum upon the machine frame, a guide rod engaging the lower cross head and forked or slotted at its lower end, and a pin secured in said lever, and adapted to engage the forked or slotted end of said guide rod to limit the upward movement of the plunger at the time of filling the mould, substantially as described. 9th. The combination, with a mould of upper end lower plungers sliding therein, a cross head supporting the lower plunger, a spring or counterbalance weight serving to sustain the lower plunger yieldingly on the lower cross head, a lever connected with the lower plunger, and having a fulcrum upon the machine frame, a guide rod engaging the lower cross head and forked or slotted at its lower end, and a pin secured in said lever and adapted to engage the forked or slotted end of said guide rod to limit the upward movement of the plunger at the time of filling the mould, the said pin being provided with an eccentric part which engages the guide rod and being adapted to be turned in the lever for adjusting the position of its eccentric part, substantially as described. 10th. The combination, with a mould of upper and lower plungers sliding therein, a cross head for supporting the lower plunger, a spring or counterbalance weight sustaining the lower plunger yieldingly on the lower cross head, a lever connected with the lower plunger and having a fulcrum upon the machine frame, a guide rod engaging the lower cross head and forked or slotted at its lower end, and a pin secured in said lever and adapted to engage the forked or slotted end of said guide rod to limit the upward movement of the plunger at the time of filling the mould, the said pin being provided with an eccentric part which engages the guide rod and being adapted to turn in the lever, and means for securing the said pin in a desired position, consisting of grooves or key ways in the said pin and the lever, and a key or spline adapted for insertion therein, substantially as described. 11th. The combination with a mould, of upper and lower plungers sliding therein, a cross head for supporting the lower plunger, a spring or counterbalance weight sustaining the lower plunger yieldingly on the lower cross head, a cross bar located below the lower plunger and having sliding connection with the machine frame, a stem passing through the lower cross head and connecting the plunger with the said cross bar, a lever fulcrumed upon the machine frame and pivotally connected with the said cross bar, and a stop on the lower cross head constructed for contact with the said lever to limit the upward movement of the lower plunger under the action of said spring or counterbalance weight, substantially as described. 12th. The combination with a mould, of upper and lower plungers sliding therein, a cross head for supporting the lower plunger, a spring or counterbalance weight sustaining the lower plunger yieldingly on the lower cross head, a cross bar located below the plunger and having sliding connection with the machine frame, a stem passing through the lower cross head and connecting the plunger with the said cross bar, a lever fulcrumed upon the machine frame and pivotally connected with the said cross bar, and a stop on the lower cross head constructed for contact with the said lever to limit the upward movement of the lower plunger under the action of said spring or counterbalance weight, said lever being provided with a journal bearing one half of which is removable, whereby the lever may engage with the cross bar between the said stem and guides, substantially as described. 13th. The combination with a mould, of upper and lower plungers sliding therein, a cross head, a spring or counterbalance weight sustaining the lower plunger yieldingly on the lower cross head, a lever connected with the lower plunger and adapted for contact with a part of or upon the lower cross head, a vertically movable screw shaft, a pivot connecting the screw shaft with the lever, a revolving nut mounted on the machine frame and engaging said screw shaft, and means for rotating said nut, substantially as described. 14th. The combination with the mould, of upper and lower plungers sliding therein, a cross head, a spring or counterbalance weight sustaining the lower plunger yieldingly on the lower cross head, a lever connected with the lower plunger, a vertically movable screw shaft, a pivot connecting said screw shaft with the lever, a revolving nut mounted on the machine frame and engaging said screw shaft, a frame affording bearings for said nut, and mounted upon pivotal supports or trunnions to afford freedom of lateral movement in the lower end of said screw shaft, substantially as described. 15th. The combination with a mould, of upper and lower plungers sliding therein, a lever for controlling the position of the lower plunger, a vertically movable screw shaft, a pivot connecting said screw shaft with the lever, a revolving nut mounted on the machine frame and engaging said screw shaft, a frame affording bearings for said nut and mounted upon pivoted supports or trunnions to afford freedom of lateral movement in the lower end of said screw shaft, a horizontal shaft mounted upon the machine frame, concentrically with the said swinging frame and provided with a hand wheel or wheels, and intermeshing bevelled gears upon the said nut and shaft, substantially as described. 16th. The combination with a mould table and feed duct or hopper, of a reciprocating feed box, the front wall of which consists in whole or in part of a piece or strip which is materially weaker than the main parts of the feed box, and is detachably secured to the latter, substantially as described. 17th. The combination with a mould and feed hopper, of a reciprocating feed box, an oscillating arm, by which the feed box is actuated, a pivot rod inserted through said arm, split sleeves placed upon the ends of the said rod at opposite sides of the arm, and provided with notches, and connecting rods pivoted to the feed box and inserted in said notches and provided with nuts on opposite sides of the said split sleeves, whereby the latter may be clamped to the pivot rod and the connecting rods secured to the sleeves, substantially as described. 18th. The combination with a mould and feed hopper, of a reciprocating feed box, an oscillating arm, by which the feed box is actuated, a pivot rod inserted through said arm, split sleeves placed upon the ends of the pivot rod and provided with notches, and connecting rods pivoted to the feed box, and inserted in said notches and provided with nuts on opposite sides of the split sleeves, said split sleeves being provided with depressions or recesses which are engaged by the nuts to hold the rods in place when the nuts are

loosened, substantially as described. 19th. A frame for a brick press, comprising two parallel side plates provided upon their inner faces with guides for the vertically movable parts of the machine and rigidly connected with each other, said plates extending downwardly to the horizontal base or foundation on which the machine rests, and a separate frame for the driving gear of the machine secured against the outer surface of one of the side plates and also extending downwardly to the said base or foundation, substantially as described. 20th. A brick machine, comprising upper and lower plungers, a toggle for actuating the same, a crank shaft for actuating said toggle, a main frame consisting of parallel vertical side plates provided on their inner faces with bearings for the vertically movable parts of the machine, and provided with bearings for said crank shaft, a gear wheel attached to the crank shaft outside of one of the frame plates, a driving gear embracing a gear pinion engaged with said gear wheel on the crank shaft, and a separate frame for said driving gear secured to the outer surface of the main frame, substantially as described. 21st. The combination, with the plunger, of a brick press provided with a cavity or recess, of a heating device comprising a continuous steam pipe made separate from the plunger and passing through the same, a part of said pipe which is located within the recess of the plunger, being in immediate contact with a part of the plunger which extends continuously to the working face thereof, to afford direct transmission of heat from the walls of the pipe to the working face of the plunger, substantially as described. 22nd. The combination, with a plunger, consisting of a recessed main part or body and a face plate attached thereto, said main part or body being provided with a recess or cavity extending to the inner surface of the plate, of a heating device comprising a continuous steam pipe made separate from the body and face plate and passing through the recess of the said body, a part of said passage which is within the body being in immediate contact with the inner surface of the said face plate, substantially as described. 23rd. The combination with a plunger consisting of a hollow or recessed main part or body, and a face plate secured thereto and closing the lower end of the recess or opening in the body, said body being provided with lateral notches or recesses a^2, a^2, in its upper edge, of a steam passage consisting of a hollow casting or box C, and pipe C^1, C^1, extending through said notches and connected with opposite ends of said hollow casting or box, substantially as described. 24th. The combination, with a plurality of recessed plungers, of a heating device for the same consisting of a continuous steam pipe made separate from the plungers and passing through the recesses of the same, parts of said pipe which are within the plungers being in immediate contact with the inner surfaces of the plungers in their parts opposite the working faces thereof, but being free from lateral contact with the said inner surfaces of the plunger, whereby the said pipe is free to move laterally with reference to the plungers, substantially as described. 25th. The combination, with a plurality of recessed plungers which are provided with face plates and the recesses of which extend to the inner surfaces of said plates, of a heating device comprising a continuous steam pipe made separate from the plungers and passing through the recesses of the same, parts of said pipe which are within the plungers being in immediate contact with the inner surfaces of the face plates, but being free from lateral contact with the inner surfaces of the plungers, whereby said pipe is free to move laterally with reference to the plungers, substantially as described.

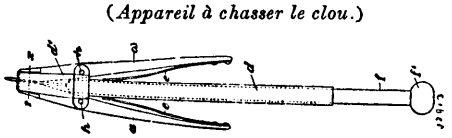
No. 43,912. Corset Stay. (*Busc de corset.*)



John Milton Van Orden, New York, State of New York, U.S.A., 12th August, 1893; 6 years.

Claim.—1st. A corset stay composed of two springs of unequal length separated from each other, and of an inclosing envelope to which each of the springs is connected, substantially as specified. 2nd. A corset stay composed of two springs, a surrounding inner envelope and an outer envelope to which the inner envelope is attached, substantially as specified.

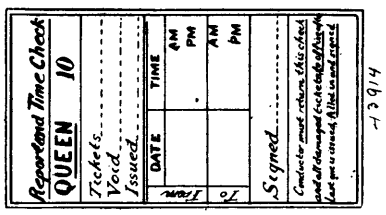
No. 43,913. Nail Driving Apparatus.
(*Appareil à chasser le clou.*)



Leonhardt Kornder, Uffenheim, Bavaria, Germany, 12th August, 1893; 6 years.

Claim.—A nail driving apparatus, comprising a pair of spring nail grippers, a tube to which such grippers are pivoted, and a driver or plunger working in such tube so that when the plunger is driven by a hammer the grippers are caused to open and thereby release the nail after the latter has to some extent penetrated the material into which it is to be driven, substantially as herein shown and described.

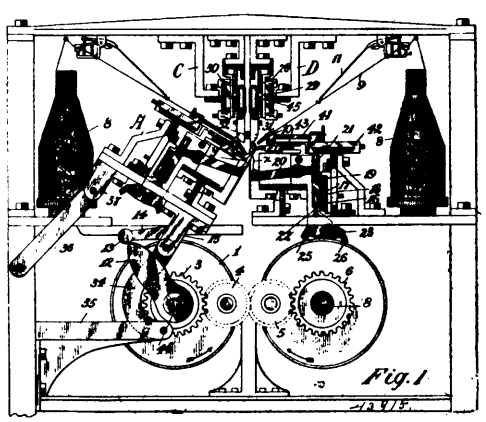
No. 43,914. Check for Transfer Tickets.
(*Compteur pour billets de transfert.*)



Emil C. Boeckh, Toronto, Ontario, Canada, 12th August, 1893; 6 years.

Claim.—A report card, marked to correspond with the series of tickets it belongs to, and on which the conductor shall enter the number of tickets issued by him and the period of issue, in combination with means for holding the cancelled tickets and a card on which the auditor shall enter a record gathered from the cancelled tickets, substantially as and for the purpose specified.

No. 43,915. Knitting Machine. (*Machine à tricoter.*)



William Williams Clay, Paris, Ontario, Canada, 12th August, 1893; 6 years.

Claim.—1st. In a knitting machine, the combination of a tilting section and means for automatically tilting the same so that its needles may hold the loops while the toe is being formed by the opposite section, substantially as specified. 2nd. A knitting machine, in which double ended needles are used, containing the following instrumentalities, viz., two lower sections adapted for flat knitting, means for tilting one of these sections while the toe is being knitted, reciprocating yarn guides for feeding the yarn to the needles, mechanism for shifting the yarn guides so as to join the ends of the flat knitted portions and thus form a tubular fabric, two upper sections adapted to operate needles automatically transferred from the lower to the upper sections when rib work is done, governor drums provided with pins for operating mechanism for throwing into and out of operation the double ended needles as desired, and means for giving an extra throw to the needle levers in the lower sections when transferring double ended needles from the lower to the upper sections, and for giving an extra throw to the sliding jacks in the upper sections when retransferring the double ended needles in the upper sections to the lower sections, substantially as described. 3rd. In a knitting machine, a tilting section pivotally supported on the frame of the machine, combined with a tilting cam adapted to rotate in such a manner as to engage with a bracket arm and quickly tilt the tilting section, and then to move slowly while the toe is being knitted so as to keep the section tilted with its needles merely holding the loops while the toe is being knitted, and then to permit the tilting section to resume its normal position while the rest of the sock is being knitted, substantially as described. 4th. A tilting cam adapted to engage with and to raise and lower a hinged section of a knitting machine, combined with a spring dog pivoted on the tilting cam, a quick moving ratchet wheel loosely sleeved on the tilting cam shaft, and a ring with an opening therein for the purpose of disengaging this dog from the ratchet wheel, a pitman deriving a reciprocal motion from an eccentric pivoted to an arm provided with a spring dog adapted to engage with and give a slow motion to a ratchet wheel fixed to the same shaft as the tilting cam, and a friction drum, substantially as described. 5th. In a knitting machine, the following instrumentalities, viz: two upper and two lower sections, and means for automatically transferring double ended needles from the lower to the upper sections when rib work is to be done and for transferring said needles, substantially as de-

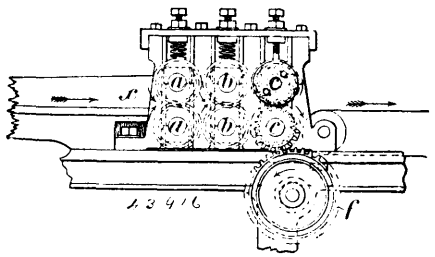
scribed. 6th. In a knitting machine, a double ended needle with hook and latch at both ends, and adapted to hold a loop and to knit at either end when operated, substantially as specified. 7th. In a knitting machine, a section hinged to the frame and adapted to be tilted so that its needles may hold the loops while the toe is being knitted, substantially as specified. 8th. In a knitting machine composed of upper and lower sections, the combination of means for automatically transferring double ended needles from a lower to an upper section while forming a sock or stocking from an upper to a lower section, and of a yarn guide for feeding the yarn to said needles, substantially as specified. 9th. In a knitting machine, a section adapted for flat knitting, combined with a section adapted to be automatically tilted, its needles being thrown out of operation and holding the loops while the toe is being formed and then restored to its knitting position, and mechanism for shifting the yarn guides so as to join the ends of the flat knitted portions after the toe is formed, substantially as specified. 10th. In a knitting machine in which double ended needles are used, mechanism for knitting the toe, foot, heel and leg of the sock or stocking, and for widening the tubular knitted fabric, combined with mechanism for knitting rib work and of discharging the sock or stocking from the machine when knitted, substantially as specified. 11th. In a knitting machine, a governor drum provided with pegs combined with a pivoted rocking lever, adapted to engage with a slotted sliding jack, and a reciprocating grooved needle cam, and a pivoted needle lever adapted to engage with a knitting needle, substantially as specified. 12th. In a knitting machine, a governor drum provided with pegs, combined with a pivoted rocking lever provided with a finger, adapted to engage with a slot on a sliding jack, so as to throw the sliding jack into and out of contact with the reciprocating grooved needle cam, substantially as specified. 13th. In a knitting machine, a sliding jack, slotted at its upper end and adapted to move on a pin, combined with a pivoted needle lever, having a long and short arm, and a grooved needle cam to pick up and engage with a shoulder formed on said sliding jack, substantially as specified. 14th. In a knitting machine, a sliding jacket adapted for vertical and lateral motion combined, with a pivoted needle lever, having a long and short arm, a double ended needle, and a grooved needle cam, having its groove flared at both ends so as to pick up and engage with a shoulder formed on said sliding jack, whether the cam is in its raised or lowered condition, substantially as specified. 15th. In a knitting machine, a sliding jack combined with a pivoted needle lever, a double ended needle, and a yarn guide for feeding yarn to the needle, a sinker to retain the work in place, a grooved needle cam, adapted to reciprocate and having a groove with flaring ends, so as to engage with a shoulder on the sliding jack, a pivoted rocking lever adapted to engage with the lower slotted end of the sliding jack, so as to throw it into and out of contact with the flaring groove on the needle cam, and a governor drum provided with pegs, substantially as specified. 16th. In a knitting machine, a pivoted needle lever with long and short arms, and provided with a hooked shaped end with long lower and short upper lip, combined with a double ended needle and a sliding jack to give motion to said pivoted needle lever, substantially as specified. 17th. In a knitting machine, provided with upper and lower sections, a sliding jack adapted to move vertically in the upper section combined with a grooved needle cam, having a groove with flaring ends, so as to pick up and engage with a shoulder formed on said sliding jack, substantially as specified. 18th. In a knitting machine, provided with upper and lower sections, a sliding jack, slotted and adapted to move vertically on a pin, combined with a grooved needle cam, having a groove with flaring ends, so as to pick up and engage with a shoulder formed on said sliding jack, whether in its raised or lowered condition, substantially as specified. 19th. In a knitting machine, a sliding jack, adapted to move vertically as well as laterally in an upper section and provided with a hooked end, combined with a double-ended needle, a spring and a grooved needle cam, having a groove with baring ends so as to engage with a shoulder formed on said sliding jack, substantially as specified. 20th. In a knitting machine, a sliding jack adapted to move vertically as well as laterally in an upper section provided with a hooked end and adapted to obtain an extra throw downward, combined with a bevelled stop, a spring, a grooved needle cam having a groove with flaring ends to engage with a shoulder on the sliding jack and a sloping shoulder on the needle cam to permit the hooked end of the sliding jack to engage with the upper hook of the double ended needle moved up to meet it from the lower section, substantially as specified. 21st. In a knitting machine, a sliding jack with a hooked end adapted to move vertically as well as laterally in an upper section and to obtain an extra throw downwards, combined with a bevelled stop to engage with a shoulder on the sliding jack when abnormally thrust downwards and a spring to return it to its vertical position when disengaged from the bevelled stop, substantially as specified. 22nd. In a knitting machine, a sliding jack adapted to move laterally as well as vertically in an upper section and to obtain an extra throw downwards, combined with a bevelled stop to engage with a shoulder on the sliding jack when abnormally thrust downwards and a spring to return it to its vertical position when disengaged from the bevelled stop, a double ended needle and a pivoted needle lever in a lower section adapted to hook on to the lower end of the double ended needle, substantially as specified. 23rd. In a knitting machine, a sliding jack adapted to move laterally as well as vertically in a lower section, combined with a grooved needle cam adapted to give an extra throw to the sliding jack so as to abnormally elevate the long arm of a pivoted needle lever, a hook formed on the end of the long arm of the needle lever, with long lower and short upper lip and a double ended needle, substantially as specified. 24th. In a knitting machine, adapted to move laterally as well as vertically in a lower section combined with a grooved needle cam adapted to give an extra throw to the sliding jack so as to abnormally elevate the long arm of a pivoted needle lever, a hook formed on the end of the long arm of the needle lever with long lower and short upper lip, a double ended needle and a sliding jack in an upper section adapted to hook on to and retain the double ended needle abnormally raised to meet it by the pivoted needle lever in the lower section, substantially as specified. 25th. In a knitting machine, the driving arm 64, with slotted head 65, combined with pitman 66, and pin 67, for operating the needle cam on the tilting lower section A, substantially as specified. 26th. In a knitting machine, a driving arm combined with a pitman having a slotted end and a grooved needle cam adapted to move in an upper and a lower groove, substantially as specified. 27th. In a knitting machine, a governor drum with a pin suitably placed in combination with lever 88, rod 87, spindle 89, rod 90, and guiding gate 91, for directing the needle cam from the upper groove 93 to the lower groove 94, and the inclined plane 95 for restoring the needle cam to the upper groove, substantially as specified. 28th. In a knitting machine, a driving arm combined with a pitman pivotally attached to a sliding head, carrying a pusharm for a yarn guide and a spring finger for operating a yarn shifting lever, substantially as specified. 29th. In a knitting machine, a governor drum adapted to rotate and provided with suitably placed pins combined with a pivoted lever 96, arm 97, hinged arm 98 for head piece, carrying groove 99, so as to disengage the push arm from the yarn guide, substantially as specified. 30th. In a knitting machine, a hinged arm 93, combined with the groove 99, the spring guiding gates 108 and 109, and a pin 100 on the push arm 41, for the purpose of withdrawing the push arm from the yarn guide, substantially as specified. 31st. In a knitting machine, a yarn guide adapted to move in a groove, combined with a sliding head and a movable push arm adapted to engage with a cam groove to withdraw the push arm from the yarn guide, substantially as specified. 32nd. In a knitting machine, a yarn guide movable in a groove combined with a sliding push arm adapted to engage with a cam groove so as to withdraw the push arm from the yarn guide, a spring finger, a sliding head, a yarn shifting lever, stops for the yarn shifting lever, a toothed rack and a rotatable grooved disc to receive the yarn guide, and operated so as to make a half revolution by means of the toothed rack, substantially as specified. 33rd. In a knitting machine, a sliding head combined with a spring finger having a thin and a thick edge, and a projection formed on the end thereof adapted to engage with a yarn shifting lever pivoted on a movable toothed rack, and stop for affording leverage for said yarn shifting lever, substantially as specified. 34th. In a knitting machine, a reciprocating spring finger combined with a yarn shifting lever adapted to give transverse motion to the toothed rack which actuates the grooved disc shifting the yarn guide, substantially as specified. 35th. In a knitting machine, a tooth rack adapted to have a reciprocating motion in a guide, combined with a spur pinion on the spindle of the grooved disc, which disc shifts the yarn guide carrying the yarn from the needles in one section to those in the opposite section as each row of knitting is completed, substantially as specified. 36th. In a knitting machine, a yarn guide combined with rotatable grooved disc adapted to receive the yarn guide at the end of each row of flat knitting and convey it with its yarn to the needles of the opposite section so as to knit a tubular fabric, substantially as specified. 37th. In a knitting machine, a yarn guide combined with a push arm adapted to engage with either side of the yarn guide so as to push the yarn guide before it when feeding yarn to the needles, substantially as specified. 38th. In a knitting machine, the combination of a wedge adapted to move in a guide, and a spring finger, rods and lever arms actuated by pins on a governor drum so as to throw the spring finger into and out of contact with the yarn shifting lever substantially as specified. 39th. In a knitting machine, a reciprocating spring finger combined with a yarn shifting lever adapted to give transverse motion to the toothed rack which actuates the grooved disc for shifting the yarn guide, and a wedge adapted to automatically throw the spring finger into and out of contact with the yarn shifting lever, substantially as specified. 40th. In a knitting machine, a wedge adapted to be moved automatically in a guide or recess combined with a spring finger on a reciprocating sliding head, substantially as described.

No. 43,916. Scutching Machine. (*Machine à teiller.*)

George Edmund Donisthorpe and Taylor Burrows, both of London, England, 12th August, 1893; 6 years.

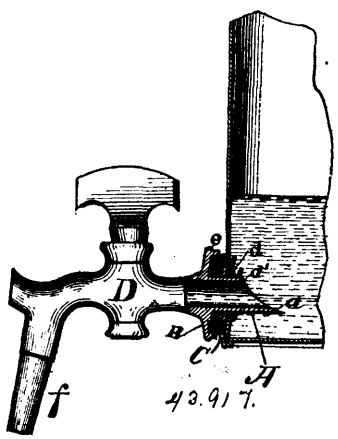
Claim.—1st. A machine for breaking, decorticating and scutching or partially scutching flax rhea (china grass) and other fibrous plants, having a pair of quickly revolving longitudinally furrowed or bladed rollers, or cylinders, the blades or flutes on which vary in depth so as to intersect, but never touch one another where they intersect, and thus at such point give a varying action on the fibrous

material in the manner described and illustrated and as and for the purpose set forth. 2nd. The rollers, such as *c*, *c*, arranged,



combined and acting, substantially as and for the purposes hereinbefore described and illustrated in the drawings hereunto annexed.

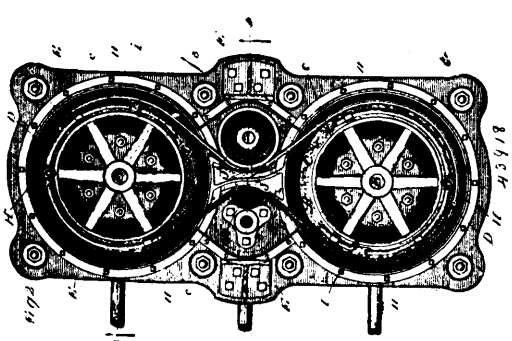
No. 43,917. Faucet. (*Robinet*)



James M. McFarland, Virgina City, Nevada, U.S.A., 12th August, 1893; 6 years.

Claim.—1st. A tube having a diagonal or bevelled cutting edge and a screw thread projecting out beyond the outer surface of said tube, the said screw thread starting from a point in advance of the rear edge of the bevel, substantially as set forth. 2nd. The combination, with a tube having a bevelled or diagonal cutting edge, a flange or abutment, and a screw thread, extending from the rear end of the bevelled portion of the tube, to or near the flange or abutment, and yielding washer bearing against the rear face of the abutment, of a faucet attached to the tube, substantially as set forth. 3rd. The combination, with a faucet, having an elongated discharge nozzle, a diagonal or bevelled cutting edge at its inner end, an abutment, and screw threads extending from a point near the inner edge of the bevel to a point near the abutment, of a yielding washer encircling the threads and bearing against the abutment, substantially as set forth.

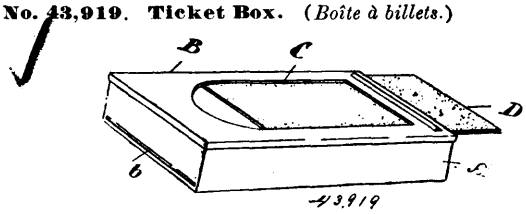
No. 43,918. Centrifugal Ore Separator.
(*Séparateur centrifuge de minerai.*)



Orrin Burton Peck, Chicago, Illinois, U.S.A. 12th August, 1893; 6 years.

Claim.—1st. In centrifugal ore separators, the combination of rotatable pulleys and a belt provided with a separating surface and travelling around such pulleys during a portion of its course and at a tangent to a circle in another portion of its course, substantially as described. 2nd. In centrifugal ore separators, the combination of rotatable pulleys and a belt provided with a separating surface and travelling around such pulleys in a circle during a portion of its course and at a tangent to a circle in another portion of its course, substantially as described. 3rd. In centrifugal ore separators, the combination of rotatable pulleys, a belt provided with a separating surface and travelling around such pulley during a portion of its course and at a tangent to a circle in another portion of its course, a material supply pipe depositing material to be carried against the separating surface of the belt at or near the point where it enters its circular course around the pulleys, and a water pipe spraying water against the separating surface of the belt while passing in its circular course, substantially as described. 4th. In centrifugal ore separators, the combination of rotatable pulleys, a belt provided with a separating surface and travelling around such pulleys during a portion of its course and at a tangent to a circle in another portion of its course, a material supply pipe depositing the material to be carried against the separating surface of the belt at or near the point where it enters its circular course around the pulleys, a water pipe spraying water against the separating surface of the belt while passing in its circular course, and means for detaching the particles adhering to the belt while passing through the tangential portion of its course, substantially as described. 5th. In centrifugal ore separators, the combination of rotatable pulleys, a belt provided with a separating surface and travelling around such pulleys during a portion of its course and at a tangent to a circle in another portion of its course, and idlers abruptly changing the course of the belt from a tangential to a circular course to cause particles adhering to its separating surface to be discharged, substantially as described. 6th. In centrifugal ore separators, a belt provided with a separating surface, travelling a portion of its course in a circular direction, means for causing such travel of the belt, and means for supplying the separating surface of the belt with the material to be separated, substantially as described.

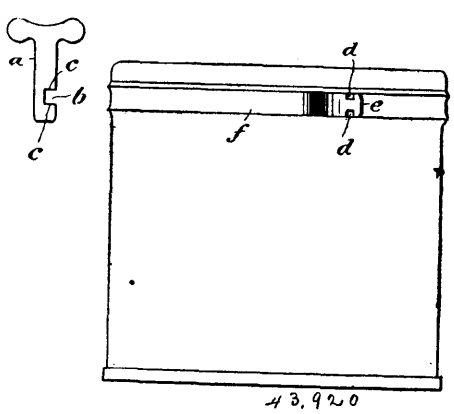
No. 43,919. Ticket Box. (*Boîte à billets.*)



John Joseph Murphy, Toronto, Ontario, Canada, 12th August, 1893; 6 years.

Claim.—1st. A ticket case having a hole or opening in its top or bottom large enough to admit of a thumb or finger, and a slit through its end large enough to permit the passage of a single ticket, in combination with a plate loosely fitted into the case and actuated by a spring, substantially as and for the purpose specified 2nd. A ticket case having openings in its top and bottom large enough to admit a thumb or finger, and slits in each and large enough to permit the passage of a single ticket, in combination with two plates loosely fitted into the case and separated by a spring, substantially as and for the purpose specified.

No. 43,920. Means for Opening Cans.
(*Moyen d'ouvrier les boîtes métalliques.*)



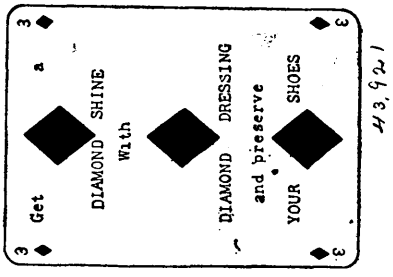
Henry Woodley, Montreal, Quebec, Canada, 12th August, 1893; 6 years.

Claim.—1st. Means for opening cans having detachable connecting strips with free projecting tongue portions consisting in a key or instrument, and the tongue portion respectively formed with notches to allow of their interlocking with each other, as set forth. 2nd. Means for opening cans having detachable connecting strips with free projecting tongue portions, consisting in a key or instrument parts of which engage the tongue portion by passing through same, and said tongue portion being formed to allow of the passage of such

parts therethrough, as set forth. 3rd. Means for opening cans having detachable connecting strips with free projecting tongue portions, consisting in a key or instrument parts of which engage the tongue portion at right angles to the longitudinal axis and transverse width of same, and the said tongue portion being formed to allow of such engagement therewith, as set forth. 4th. Means for opening cans having detachable connecting strips with free projecting tongue portions consisting in a key or instrument, the stem of which is formed or cut away to form shoulders to engage the tongue portion by passing through same, and said tongue portion being formed with openings to allow of the passage of such lateral projecting portions therethrough, as set forth. 5th. Means for opening cans having detachable connecting strips with free projecting tongue portions consisting in a key or instrument, the stem of which is formed or cut away to form shoulders to engage the tongue portion at right angles to the thickness of same, and the said tongue portion being in the form of a T, to allow of the engagement of said shoulders beneath the lateral arms of same, as shown and described.

No. 43,921. Method of Advertising.

(*Mode de publicité.*)

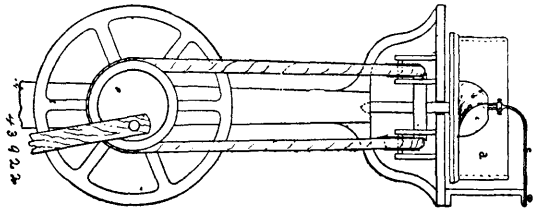


P. M. Daignault, Montreal, Quebec, Canada, 14th August, 1893; 6 years.

Claim.—The herein described method of circulating advertisements, etc., consisting in printing on the face side of each and every playing cards contained in a package of cards, a suitable and distinct advertisement, cut or design, substantially as herein shown and described and for the purposes set forth.

No. 43,922. Triturating and Emulsifying Machine.

(*Machine à adoucir et triturer.*)



William B. Cowan, Guelph, Ontario, Canada, 14th August, 1883; 6 years.

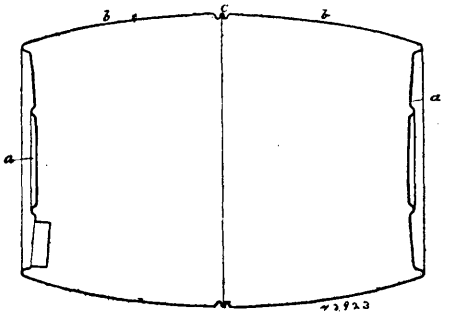
Claim.—1st. The concavo convex S-shaped grinding stones, slugs, or mullers (with rounded under sides), *b* and *c*, or the two combined in one, properly shaped for collecting, grinding and mixing medical substances in any suitable medium, as hereinbefore described and illustrated in the drawings. 2nd. The fork consisting of the carrier *e*, secured at one end in a horizontal position to a supporting bracket outside the revolving pan, by means of a thumb screw working in a slot in the carrier *e*, and by which it can be adjusted, the other end of the carrier *e* projecting downwardly into the centre of the revolving pan, and being enlarged at the extremity to enable two lateral parallel holes to be drilled, through which the horizontal arms or stems of the fork tangs *f* are passed and secured in any desired position by means of set or thumb screws, the lower ends of the tangs fit into holes in the stones as hereinbefore described and illustrated in the drawings. 3rd. The triturating and emulsifying machine for grinding and mixing with a suitable medium medical substances, consisting of a revolving pan *d*, operated by treadle and drive wheel, in which the grinding stone or stones *b*, *c*, are held by the fork tangs *f*, secured adjustably by means of thumb or set screws to the downwardly projecting end of the carrier *e*, the other end of which is secured to an independent bracket outside the revolving pan, the whole combined and operating as hereinbefore described and illustrated in the drawings.

No. 43,923. Method of Making Metal Barrels.

(*Méthode de fabrication de barils métalliques.*)

David Caird, London, England, 14th August, 1893; 6 years.

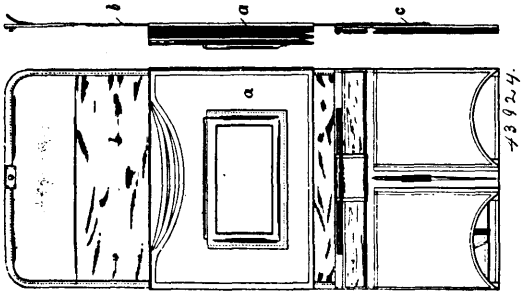
Claim.—1st. The process or method hereinbefore described, of manufacturing metal barrels or other similar vessels, which consists in first stamping or drawing two half or part barrels or vessels from metal sheets or blanks, each of such parts comprising one head or end of the barrel or vessel and one half or part of the body,



in then flanging, the edges of the body parts of said half or part vessels, and in then connecting together and forming a liquid tight joint between the two half or part vessels by means of their flanges, whereby a complete liquid tight vessel is produced, substantially as set forth. 2nd. The process or method hereinbefore described of manufacturing metal barrels or other similar vessels, which consists in first stamping or drawing two half or part barrels or vessels from metal sheets or blanks, each of such parts comprising one head or end of the barrel or vessel, and one half or part of the body, in then forming an out-turned flange on the edge of the body part of each of said half or part vessels, the flange on the one body part being wider than the flange on the other body part, and in their connecting together and forming a liquid tight joint between the two half or part vessels, by folding and doubling the wide flange on the one half vessel over the narrow flange on the other half vessel, substantially as set forth. 3rd. In a metal barrel or other similar vessel, formed of two half or part vessels, each of which comprises one head or end of the vessel and one half or part of the body, the flanges *c*, *c*^{1}, on the edges of the body parts of said half or part vessels, in combination with the circumferential grooves or recesses *d*, *d*, in said body parts, substantially as and for the purpose set forth. 4th. In a metal barrel or other similar vessel formed of two half or part vessels, each of which comprises one head or end of the vessel, and one half or part of the body, a liquid tight joint or connection between said half or part bodies, consisting of butting flanges at the meeting edges of the body parts, circumferential grooves or recesses in said body parts near their meeting edges, and a hoop put while hot around the meeting edges and into said grooves or recesses, the half or part bodies being drawn together by the shrinkage of the hoop in cooling, substantially as set forth.

No. 43,924. Back for the Cover of Books.

(*Dos pour couvertures de livres.*)



Ernst Schafer, Jserlohn, Prussia, 14th August, 1893; 6 years.

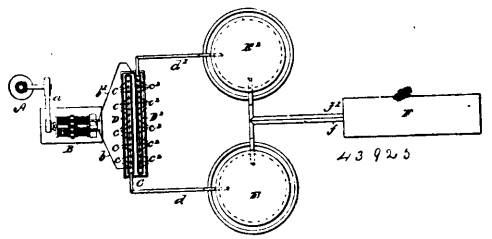
Claim.—1st. An adjustable casing back for books, portfolios letter cases and other similar articles of every kind, characterized by a part *a*, consisting of two portions fastened together at the top and bottom, and having at their two sides an opening through which the part *b* may be moved backwards or forwards to the extent of its full length, whereby the fastening of the portfolio, bag or case may be affected at any desired point. 2nd. The combination with an adjustable casing for books, etc., of a lock provided with a series of holes *e*, for the reception of the locking knob or head *g*, and the neck *h*, as well as with a plate *d*, having a corresponding series of holes *f*, for the introduction of the neck *h*, of the knob *g* in effecting the locking of the pocket book, the letter book or other similar object.

No. 43,925. Method of Utilizing Water Power for Heating and Smelting. (*Méthode d'utiliser les pouvoirs d'eau pour chauffer et fondre.*)

Stephen H. Emmens, London, England, 14th August, 1893; 6 years.

Claim.—1st. The method of utilizing water power for heating and smelting, consisting in first converting such power into electric energy, secondly, employing such electric energy in the production

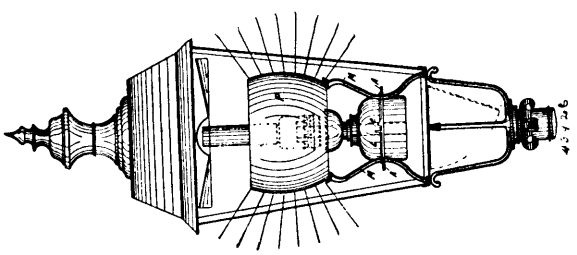
of hydrogen and oxygen by electrolysis, thirdly, collecting and storing each of these gases separately, and fourthly, burning the said



hydrogen by means of the said oxygen, with or without an admixture of atmospheric air. 2nd. Apparatus for utilizing water power as a source of heat, comprising a dynamo operated by such water power, a water decomposing electrolytic cell operated by the current from such dynamo, two gas receivers enclosing the respective electrodes of such cell, two collecting mains connected with said receivers, two gas holders connected with said mains, and a suitable gas furnace connected with said gas holders respectively, in which the hydrogen and oxygen are utilized for the production of heat by chemical combination, substantially as hereinbefore specified.

No. 43,926. Dioptric Appliance for Lamps.

(*Accessoire dioptrique pour lampes.*)

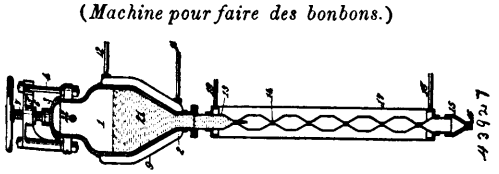


Auguste Nieuwenhuys, Brussels, Belguim, 14th August, 1893; 6 years.

Claim.—1st. In lanterns, the use of a stand composed of two, three or more supporting arms M of any desired configuration so combined and arranged as to serve as support both the oil lamp L and projector or dioptric appliance P, the oil lamp being carried by the connecting ring A or equivalent device, while the projector is carried by a seat formed either by the upper ends of the arms M, or by a ring fixed thereto, such support being also applicable for carrying the projector, when the source of light is otherwise supported, substantially as described. 2nd. For increasing the brilliancy and steadiness of the lights in railway carriages, the combination with any suitable lighting apparatus of a lenticular projector or dioptric appliance consisting of several sections A, B united to each other or cast in one piece in such manner that their external surfaces form approximately a sphere, concentrating and reflecting correctly the rays of light emitted from the source of light placed at the centre, substantially as described and shown in the accompanying drawings.

No. 43,927. Machine for Making Candy.

(*Machine pour faire des bonbons.*)

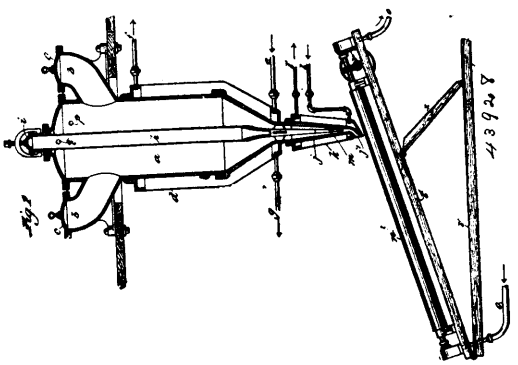


Burchard Thoens, New Orleans, Louisiana, U.S.A., 14th August, 1893; 6 years.

Claim.—1st. A candy making machine consisting of a vessel or container having a discharge neck and a closing cover and a pipe connected with the discharge neck and provided at intervals with a series of contractions, substantially as described. 2nd. A candy making machine consisting of a vessel or container having a discharge neck and a closing cover, a pipe connected with the discharge neck and provided at intervals with a series of contractions, and a nozzle secured to the lower end of the pipe and provided with a contracted orifice, substantially as described. 3rd. A candy making machine consisting of a vessel or container having a discharge neck and a closing cover, a jacket surrounding the vessel or container and having inlet and outlet pipes, a conveying pipe connected with the discharge neck of the vessel or container and having at its lower end a nozzle provided with a contracted orifice, and a jacket surrounding the conveying pipe and having an inlet and an outlet, substantially as described. 4th. A candy making machine, consisting of a vessel or container provided with an air inlet opening 22, a discharge neck 2, and a closing cover 3, a jacket 9, surrounding the vessel or container and having an inlet and an outlet, a conveying pipe connected with the discharge neck and having at its lower end a nozzle provided with a contracted orifice, and a jacket surrounding the conveying pipe and provided with an inlet and an outlet, substantially as described. 5th. An apparatus for manipulating candy material, consisting of a suitable closed vessel, means for subjecting the contents thereof to pressure, a pipe or conveyer into which the contents of said vessel are discharged under pressure, said pipe or conveyer having at suitable intervals contracted or strangulated portions forming part of the continuous passage and being provided with a tip having a contracted exit opening, and one or more jackets inclosing said pipe or conveyer and having suitable inlet and outlet, substantially as described.

No. 43,928. Machine for Making Candy.

(*Machine pour faire des bonbons.*)



Burchard Thoens, New Orleans, Louisiana, U.S.A., 14th August, 1893; 6 years.

Claim.—1st. In a candy machine, the combination, with a main vessel, having at its lower end a discharge nozzle, heating jackets surrounding the main vessel and its nozzle, pipes for conducting heating fluid into and out of the said jackets, inclined hollow cooling rollers arranged beneath the discharge nozzle and rotating in the same direction, and means for supplying a cooling fluid to the interior of the hollow cooling rollers, substantially as described. 2nd. In a candy machine, the combination, with a main vessel, having at its lower end a discharge nozzle, of a separate vessel located in the main vessel for containing material differing in colour or other quality from that in the main vessel, and having a mouth piece arranged within and discharging through the discharge nozzle of said main vessel, inclined hollow cooling rollers arranged between the discharge nozzle of the main vessel and rotating in the same direction, and means for supplying a cooling fluid to the interior of the hollow cooling rollers, substantially as described. 3rd. In a candy machine, the combination of a main vessel having at its lower end a discharge nozzle, heating jackets surrounding the main vessel and its nozzle, pipes for conducting heating fluid into and out of said jackets, a separate vessel arranged within the main vessel for containing material differing in colour or other quality from that in said main vessel, and having a mouth piece arranged within and discharging through the discharge nozzle of the main vessel, inclined hollow cooling rollers arranged beneath the discharge nozzle of the main vessel and rotating in the same direction, and means for supplying a cooling fluid to the interior of hollow cooling rollers, substantially as described. 4th. In a candy machine, the combination of a main vessel having at its lower end a discharge nozzle, inclined hollow cooling rollers arranged beneath the discharge nozzle, and rotating in the same direction, and means for supplying a cooling fluid to the interior of the hollow cooling rollers while they are rotating, substantially as described.

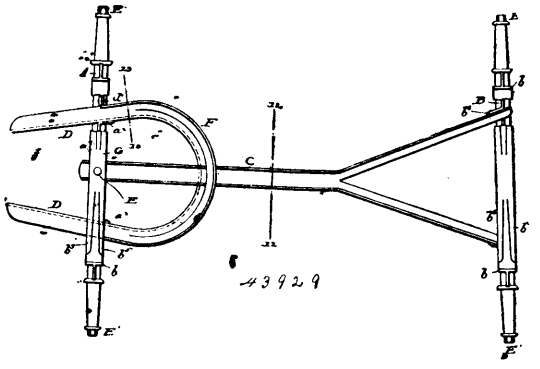
No. 43,929. Metallic Wagon Frame.

(*Cadre métallique de wagon.*)

William Peter Bettendorf, Davenport, Iowa, U.S.A., 14th August, 1893; 6 years.

Claim.—1st. A hollow metal axle having on its upper side a longitudinal web or bolster formed integral therewith. 2nd. A hollow metal axle having integral therewith an overlying longitudinal web or bolster flanged along its top. 3rd. A metal axle having thereon and integral therewith a longitudinal web or bolster and standards at its ends. 4th. A combined axle and bolster consisting of a single bar of metal longitudinally flanged at the upper and lower edges, and having the lower flanges bent into the form of a hollow axle. 5th. A bolster composed of a flanged bar having its flanges cut loose at the ends to serve as springs. 6th. A bolster, its standards and springs formed from a single piece, substantially as described and shown. 7th. An axle, bolster, standards and springs formed from a single piece of metal, substantially as shown. 8th. The rear axle having integral therewith the overlying rib or bolster with ears punched therefrom for the attachment of the reach. 9th.

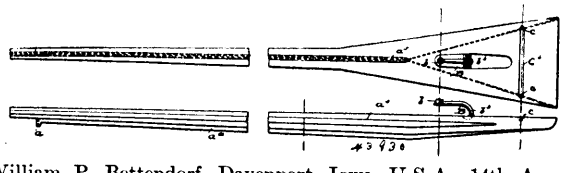
In combination with the axle, the longitudinal rib or bolster formed integral therewith and provided with corrugations. 10th. The



metal axle consisting of the flanged bar having its lower flanges bent into an axle, and its ends reduced to conical form. 11th. The tubular metal axle having its ends reduced to conical form and upset to form the internal shoulders. 12th. The tubular axle having at each end a spindle integral therewith, and a shoulder at the inner end of the spindle in combination with an internal strengthening tube projecting outward beyond the end of the axle and extending inward beyond the shoulder. 13th. In combination with the tubular axle, the internal strengthening tube, its inner end screwed into shape within the axle, and its outer end projected beyond the axle and threaded to receive a nut. 14th. The reach consisting of a single piece of metal having its rear end divided longitudinally and vertically, and spread horizontally. 15th. In combination with the rear axle and the bolster or sand board with lips thereon, the divided metal reach having its rear ends secured to the lips substantially as described. 16th. The combined sway bar and hounds consisting of a metal bar of the angular form shown divided horizontally and separted vertically, whereby it is adapted for the passage of the reach therethrough, and provided with broad bearing faces to act upon the reach. 17th. In combination with the front axle having a web or bolster, and its lips integral therewith, the hounds extended through the web and secured to the lips, substantially as shown. 18th. The combined sway bar and hounds formed in one piece with the lips thereon for the attachment to the axle. 19th. The combined wagon reach and hounds constructed as herein described, and comprising a single hollow reach and diverging hollow hounds integral therewith. 20th. The combined wagon reach and hounds constructed as shown and described, and comprising a single semi-tubular reach, and diverging semi-tubular hounds integral with the reach. 21st. The combined wagon reach and hounds constructed as shown and described, and comprising a single reach and diverging hounds integral therewith, the reach being tubular at points to afford bearings for the king bolt and sway bar and semi-tubular at all other points.

No. 43,930. Metallic Wagon Tongue.

(*Armon métallique de wagon.*)



William P. Bettendorf, Davenport, Iowa, U.S.A., 14th August, 1893; 6 years.

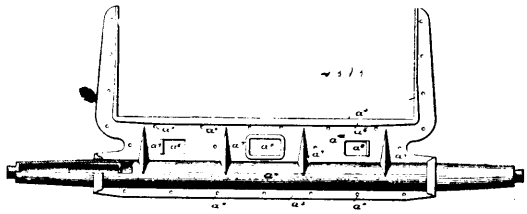
Claim.—1st. A wagon tongue formed of sheet metal, the front or pole portion bent into tubular form and the rear portion flat and of a width and shape to fit between the front hounds of the wagon, substantially as shown and described. 2nd. A wagon tongue formed of sheet metal, the front or pole portion bent into tubular form and the rear portion flat, of size and shape to fit between the front hounds of the wagon, and having down turned edges with openings therein for the reception of the cross bolt, substantially as shown and described. 3rd. A sheet metal wagon tongue having an integral hammer strap formed by bending up a strip of metal severed along its longitudinal edges and at one end, substantially as shown and described. 4th. A sheet metal tongue having its edges secured by tubular rivets integral with one edge and extending through holes in the outer edge and burred down.

No. 43,931. Metallic Wagon Frame.

(*Cadre métallique de wagon.*)

William Peter Betendorf, Davenport, Iowa, U.S.A., 14th August, 1893; 6 years.

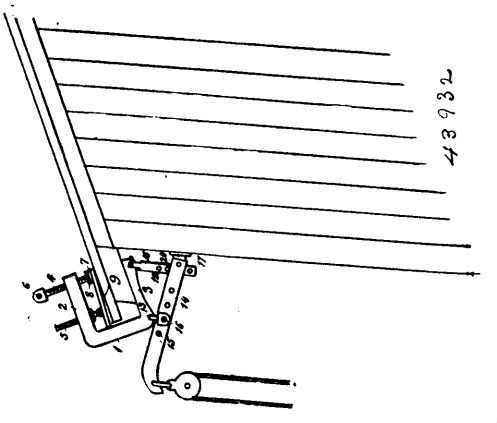
Claim.—1st. The combined axle, bolster and stakes, consisting of two longitudinal complementary parts formed from sheet metal and united face to face, substantially as described and shown. 2nd. The tubular axis, the bolster integral therewith and the standards



integral with the bolster, said parts constructed substantially as described. 3rd. In a wagon, the tubular axle, the flanged bolster and the flanged standards rising from the bolster, said parts constructed of two complementary sheet metal members. 4th. The herein described blank, having substantially the outline shown in Fig. 1, with the extensions a, a, the portion a^1 and the extension a^2. 5th. A combined wagon axle and sand board, consisting of two complementary parts, each formed from a single sheet of metal and the two united, substantially as described. 6th. A sheet metal axle consisting of two semi-tubular sections having their ends welded together in the form of conical spindles, and the intermediate portion riveted together. 7th. A combined axle and sand board, consisting of two complementary parts each formed from a single sheet of metal, one edge bent into semi-tubular form, and the opposite edge bent to form one side of the sand board. 8th. In a sheet metal axle, the two longitudinal complementary parts, in combination with the internal strengthening sleeves C, extending from the spindle into the main body. 9th. The combined axle and sand board consisting of the two longitudinal complementary parts united face to face, vertical depressions being formed in their proximate faces to provide a king bolt opening F. 10th. The sheet metal axle consisting of longitudinal members, one having tubular necks or rivets raised therefrom and projected through and fastened to the other member. 11th. The combined axle and sand board consisting of the two complementary sheet metal parts, substantially as described, united face to face and provided with corrugations E. 12th. In a combined axle and sand board, the complementary sheet metal parts united face to face, and provided with opening a^4, having the lips a^5, turned outward therefrom in opposite directions to receive the sway bar. 13th. The blank for an axle and sand board consisting of a sheet metal plate having substantially the outline shown in Fig. 1, with end projecetions a a, to form complementary parts of the spindles, and the side extension a^1, to form a complementary part of the sand board. 14th. A wagon bolster constructed of two complementary sheet metal plates secured together face to face and having their upper and lower edges bent outward to form bearing surfaces, substantially as shown and described. 15th. A wagon bolster with standards at its ends, composed of two complementary sheet metal halves, each consisting of a single piece of sheet metal flanged longitudinally and bent upward at the ends. 16th. The sheet metal bolster consisting of the two united sheet metal members, each flanged at the base and at the top and upturned at the ends to form standards. 17th. The sheet metal bolster consisting of the two longitudinal sheet metal members joined face to face, each member having a top flange extending horizontally outward and turned downward at the outer edge. 18th. A sheet metal wagon standard consisting of two members of L form in cross section, joined face to face.

No. 43,932. Device for Suspending Scaffolding.

(*Appareil pour suspendre les échafaudages.*)

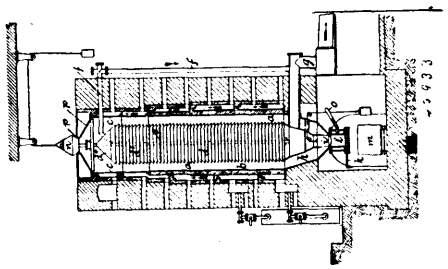


Carl Heinemann, Hammond, Indiana, U.S.A., 14th August, 1893; 6 years.

Claim.—In a device for suspending swinging ladders from the eaves or cornices of buildings, the combination of the bent plate

consisting of a central portion and two projecting arms, the intermediate movable plate, the screw bolts adapted to engage with said plate, the pivoted adjustable lever having a pivoted plate at one end, the depending arm pivoted to the lower arm of said bent plate and provided with a series of holes, and the pin adapted to pass through said holes and limit the upward movement of said lever, substantially as described.

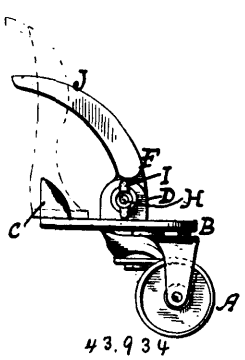
No. 43,933. Method of Making Coke.
(*Méthode de faire du coke.*)



Martin Ziegler, Nachterstedt, Prussia, 14th August, 1893; 6 years.

Claim.—1st. The process of manufacturing coke from turf, peat, lignite, etc., which consists in preparing cakes of the said substances, drying the same, extracting the gases, vapours, etc., therefrom by a coke oven, and quenching or impregnating the resulting coke with steam saturated with nitrite of soda, substantially as and for the purpose set forth. 2nd. In the manufacture of coke, the process of quenching coke saturated with nitrate of soda, substantially as and for the purpose set forth. 3rd. A coke oven, having an annular coking chamber and concentric within the same vapour collecting chambers, said coking chamber contracted at the bottom to form a hopper, in combination with a counterbalanced slide valve mounted in an extension of one of the said vapour collecting chambers, a water jacketed quenching receptacle having a slide to temporarily form the bottom of the said quenching receptacle, the latter fitted to the said hopper of the coking chamber in proximity to the slide valve, and having a steam admission pipe communicating with the interior of the said quenching receptacle, substantially as and for the purpose set forth.

No. 43,934. Stove Caster. (*Roulette de poêle.*)

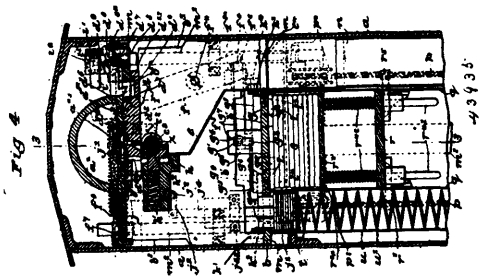


43,934

Zachariah D. Morrow, Franklin, Illinois, U.S.A., 14th August, 1893; 6 years.

Claim.—1st. A stove caster having its base plate provided with a flange to engage the rear side of the stove leg, and having a brace adjustably secured upon the base plate and adapted to engage the front side of the stove leg. 2nd. A stove caster having its base plate provided with a flange to bear against the rear side of the stove leg, and having a brace rising from its base plate and provided with diverging arms to engage the sides of the stove leg. 3rd. In a stove caster, the combination of the base plate having a flange to engage the stove leg and a lug provided with radial grooves in its side, a brace adapted to engage the stove leg and provided with radial ribs adapted to engage said grooves, a bolt inserted through the lug and the end of the brace, and a thumb nut mounted on the end of the bolt. 4th. In a stove caster, the combination with the base plate, of a brace rising therefrom, and screw mounted on the base plate and having a binding plate swivelled on its front end. 5th. In a stove caster, the combination with the base plate, of a brace rising therefrom and engaging the front side of the stove leg, a curved flange bearing against the rear side of the stove leg and a screw mounted on the base plate in rear of said flange and carrying a binding plate adapted to bear against the stove leg.

No. 43,935. Stamp Vending Machine. (*Appareil actionné par une pièce de monnaie pour la vente des estampilles.*)



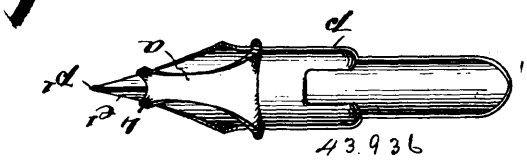
Cornelius F. A. Röell, 63 St. James Street, County of Middlesex, England, 14th August, 1893; 6 years.

Claim.—1st. In a coin operating machine the combination of a sizing frame mounted with capability of rotation and adapted to arrest the coins of a given size whilst allowing coins of smaller size to pass therethrough, means of rotating the sizing frame, a moving part acted upon by the coin, a pusher for projecting the packages of goods and suitable connections between the moving part and the pusher, the parts being so arranged that the arrested coin acts as a lever to traverse the moving part, substantially as herein shown and described. 2nd. In a coin operating machine the combination of a sizing frame mounted with capability of rotation, and adapted to arrest coins of a given size whilst allowing coins of smaller size to pass therethrough, means of rotating the sizing frame, a pusher for ejecting the packages, and normally resting about the centre of the column, a sliding bending block or anvil indirectly connected with the pusher, and against which the arrested coin acts as a lever to retract the pusher so as to engage a package and a spring indirectly connected with the bending block for returning the parts to their normal position, and through the pusher ejecting the package, substantially as herein shown and described. 3rd. In a coin operating machine, the combination of a coin holder or sizing frame mounted with capability of rotation, means of rotating the sizing frame, a pusher for ejecting the packages and normally resting about the centre of the column thereof, a sliding bending block or anvil indirectly connected with the pusher, and provided with two slots therein, and two faces to be acted upon by two successive coins, a spring indirectly connected with the bending block for returning the parts to their normal positions a detent device for holding and preventing the return of the bending block carried forward by the coins, and a device for automatically tripping the detent upon the completion of the transverse of the bending block, substantially as herein shown and described. 4th. In a coin operating machine, the combination of a coin holder or sizing frame mounted with capability of rotation, means of rotating the coin holder, a pusher for ejecting the packages and normally resting about the centre of the column thereof, a sliding bending block or anvil indirectly connected with the pusher and provided with two slots therein, and two faces to be acted upon by two successive coins, a spring indirectly connected with the bending block for returning the parts to their normal position, several teeth upon the bending block, a detent for engaging the teeth and holding and preventing the return of the bending block carried forward by the coins a sliding block provided with a spring for holding the detent to its work and acted upon by the bending block in the last part of its traverse to remove the spring and cause it to act upon the tail of the detent and thus trip it and permit the return of the parts to their normal position, and an extension of the bending block for returning the spring block to its normal position with a delayed motion, substantially as herein shown and described. 5th. In a coin operating machine, the combination of a holder for the coins mounted with capability of rotation means of rotating such holder, a pusher for ejecting the packages normally resting about the centre of the column of packages, a sliding bending block or anvil indirectly connected with the pusher and against which the coin acts as a lever to retract the pusher so as to engage a package, a spring indirectly connected with the bending block for returning the pusher to its normal position, and thus ejecting the package, and a spring stop for preventing the turning back of the coin, substantially as herein shown and described and for the purpose stated. 6th. In a coin operating machine, the combination of a holder for the coins mounted with capability of rotation, means of rotating such holder, a pusher for ejecting the packages normally resting about the centre of the column of packages, a sliding bending block or anvil indirectly connected with the pusher and against which the coin acts as a lever to retract the pushers, so as to engage a package and a spring incline for increasing the resistance of the bending block or anvil, substantially as herein shown and described. 7th. In a coin operating machine, the combination of a holder for the coins mounted with capability of rotation, means of rotating such holder, a pusher for ejecting the packages normally resting about the centre of the column of packages, a sliding bending block or anvil indirectly connected with the pusher and against which the coin acts as a lever to retract the pushers so as to en-

gage a package, and a spring stop or incline for discharging the coin from the sizing frame at a given point in its forward rotation, substantially as herein shown and described. 8th. In a coin operating machine, a holder for the coins mounted with capability of rotation, means of rotating such holder, a pusher for ejecting the packages, a sliding bending block or anvil indirectly connected with the pusher and against which the coin acts as a lever to give motion to the pusher, a spring stop or incline, an annular groove in the coin holder, and a corresponding projection upon the spring stop or incline for ensuring the discharge of the coin from the coin holder, substantially as herein shown and described. 9th. In a coin operating machine for delivering packages, a pusher for ejecting the packages normally resting about the centre of the column of packages, and adapted to hold the first package of the column out of alignment with the delivery orifice, substantially as herein shown and described and for the purpose stated. 10th. In a coin operating machine, the combination of a sizing frame mounted with capability of rotation and adapted to arrest coins of a given size whilst allowing coins of smaller size to pass therethrough, means of rotating the sizing frame, a pusher for ejecting the packages, a sliding bending block or anvil indirectly connected with the pusher, and against which the arrested coin acts to traverse the same, and a spring incline for increasing at a given point the resistance of the bending block or anvil, substantially as herein shown and described. 11th. In a coin operating machine, the combination of a coin holder mounted with capability of rotation, and a disc fixed to the coin holder and mounted in the outer wall of the machine, and provided with a crank handle, substantially as herein shown and described and for the purpose stated. 12th. In a coin operating machine, the combination of a rotary crank disc for operating the delivery mechanism, a recess in the case of the machine of the form of a quarter of a sphere, a money slot in the floor of such recess and an aperture in the rotary disc corresponding with the recess, substantially as herein shown and described and for the purpose stated. 13th. In a coin operating machine, the combination of a rotary crank disc for operating the delivery mechanism, a money slot in the case of the machine, and an aperture in the rotary disc corresponding with the money slot, substantially as herein shown and described and for the purpose stated. 14th. In a coin operating machine, the combination of a coin holder or sizing frame mounted with capability of rotation, means of rotating the sizing frame, a pusher for ejecting the packages, a sliding bending block or anvil indirectly connected with the pusher, and against which the coins acts to traverse the same, and a stop bolt actuated from the bending block or anvil for blocking the money slot upon the first operation of the machine, substantially as herein shown and described. 15th. In a coin operating machine, in which the packages of goods to be delivered are stored in a column, the combination of a pusher block, a vertically movable delivery shutter, and a spring bolt carried by the pusher block for locking and releasing the delivery shutter, substantially as herein shown and described. 16th. In a coin operating machine, in which the packages of goods are stored in a column, a stop bolt indirectly acted upon by the issuing package for blocking the money slot until the package has completely issued, substantially as herein shown and described. 17th. In a coin operating machine, the combination of a coin holder or sizing frame mounted with capability of rotation, means of rotating the sizing frame, a pusher for ejecting the packages, a sliding bending block or anvil indirectly connected with the pusher and against which the coin acts to traverse the same, a single stop bolt for blocking the money slot and means acted upon severally by the first movement of the bending block, the first movement of the package and by the last movement of the lift for actuating such bolt, substantially as herein shown and described. 18th. In a coin operating machine, a delivery mechanism formed independent of the lifting and money receiving mechanism in order that the former may be readily removed from the machine without disturbing the latter, substantially as herein shown and described. 19th. In a coin operating machine, the combination of a delivery mechanism formed separate from the lifting and money receiving mechanism, and means for instantaneously connecting and disconnecting the delivery mechanism with the rest of the machine, substantially as herein shown and described and for the purpose stated. 20th. In a coin operating machine, a money receiving device consisting of a flexible bag terminating at its lower end in a cylindrical box provided with a hinged door or cover secured by a catch or lock, substantially as herein shown and described. 21st. In a coin operating machine, a money receiving device consisting of a length of metal or glass tube, a flexible bag in continuation thereof, and a cylindrical box at the lower end of the bag provided with a hinged door or cover secured by a catch or lock, substantially as herein shown and described. 22nd. In a coin operating machine, the combination of a lift for the column of packages, a spring barrel and chains or the like at one end connected to the lift and passing over guide pulleys, and at the other end connected with the spring barrel, substantially as herein shown and described. 23rd. In a coin operating machine, the combination of a lift for the column of packages, a spring barrel, flanged wheels or regulating devices attached to the spring barrel and chains or the like at one end connected to the lift and passing over guide pulleys and at the other end connected to the flanged wheels, substantially as herein shown and described. 24th. In a coin operating machine, the combination of a lift for the column of packages, a spring barrel, means of regulating the strength of the spring, chains or the like at one end connected with the lift and passing over guide pulleys and at the other end connected with the spring barrel, and a ratchet device adapted to be automatically released by the door of the machine for restraining the spring barrel upon the depression of the lift, substantially as herein shown and described. 25th. In a coin operating machine, a lift for the column of packages provided with a supplemental table supported upon regulating springs, substantially as herein shown and described.

No. 43,936. Ink Holder for Pens.

(*Porte-encre pour Plumes.*)

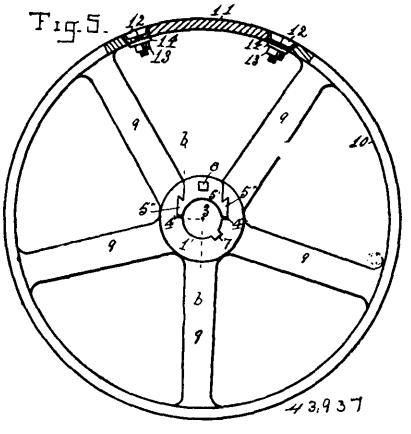


Charles Walter Vose, Chatham, Massachusetts, U.S.A., 14th August, 1893; 6 years.

Claim.—The herein described ink holding attachment for pens, consisting of a piece of elastic, flexible and non metallic material, slotted at opposite ends to form loops to engage the pen at opposite ends of its eye, and adapted to be held in place by its elasticity when stretched upon the pen, substantially as described.

No. 43,937. Separable Collar and Pulley.

(*Poulie et collet séparables.*)

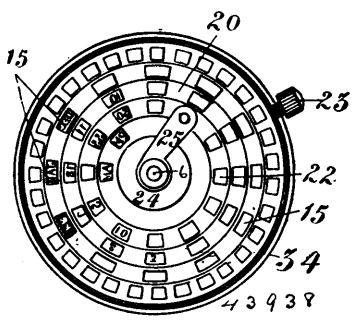


Orton C. Little and Duncan T. H. Mackinnon, both of Menasha, Wisconsin, U.S.A., 14th August, 1893; 6 years.

Claim.—1st. A separable device, for use as a collar, pulley or pulley hub, having that portion which is adjacent the bore provided with a slot slightly wider than said bore, said slot having upon each side thereof, outward from the axial line of said device, recesses whose bottom sides are the diametrical plane of said device, their back or outer sides, planes at right angles with their bottom sides and parallel with the axial line of the device, and their upper sides, planes lying at such an angle with their bottom sides as to produce recesses, which are wedge shaped, lengthwise of said bore, a block or blocks, having wings on two sides thereof, corresponding with said recesses, and being adapted to be driven into said slot and to clamp the device upon a shaft, and means for securing said block, or blocks therein, substantially as described. 2nd. A separable device for use as a collar, pulley or pulley hub, having that portion which is adjacent the bore, provided with a slot slightly wider than said bore, said slot having upon each side thereof, outward from the axial line of said device, recesses whose bottom sides are the diametrical plane of said device, their back or outer sides, planes at right angles with their bottom sides and parallel with the axial line of the device, and their upper side planes lying at an acute angle with their outer sides and at such an angle with their bottom sides as to produce recesses which are wedge-shaped lengthwise of said bore, a block or blocks, having wings on two sides thereof, corresponding with said recesses, and being adapted to be driven into said slot, to draw the sides thereof toward each other and to clamp the device upon a shaft, and means for securing said block or blocks therein, substantially as set forth. 3rd. The combination in a separable pulley, of a hub having that portion which is adjacent the bore provided with a slot slightly wider than said bore, said slot having upon each side thereof, outward from the axial line of said pulley, recesses whose bottom sides are the diametrical plane of said pulley, their back, or outer sides, planes at right angles with their bottom sides and parallel with the axial line of the pulley, and their upper side planes lying at such an angle with their bottom sides as to produce recesses which are wedge shaped lengthwise of said bore, a block, or blocks, having wings on

two sides thereof corresponding with said recesses and being adapted to be driven into said slot and to clamp the pulley upon a shaft, and means for securing said block, or blocks, therein, a pulley rim having a section thereof removable for placing the pulley upon said shaft, the ends of said removable section and of the main part of the pulley rim being each provided with dove tail slots having their narrowest ends outward, the side edges of said slots being bevelled from the outer to the inner face of said rim sections, and a bolt having a head, shank and nut, each half of the former corresponding in form to said dove tail and bevelled edge slots, the shank being adapted to enter said slots and the nut to be screwed upon the shank and to draw said rim sections together and to clamp them between said head and nut, substantially as set forth. 4th. In a separable pulley, the combination of a rim having a section thereof removable for placing the pulley upon a shaft the ends of said removable section and of the main part of the pulley rim being each provided with dove tail slots having their narrowest ends outward, the side edges of said slots being bevelled from the outer to the inner face of said rim sections, and a bolt having a head, shank and nut, each half of the former corresponding in form to said dove tail and bevelled edge slots, the shank being adapted to enter said slots and the nut to be screwed upon the shank and to draw said rim sections together and to clamp them between said head and nut, substantially as described.

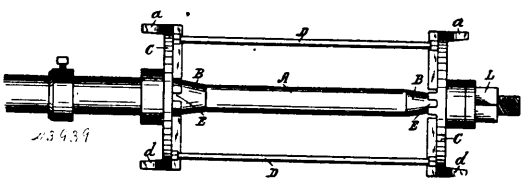
No. 43,938. Dating Stamp. (*Timbre à dater.*)



William Mathieson, Toronto, Canada, 15th August, 1893; 6 years.

Claim.—1st. In a dating stamp a case comprised of a base, a ring 11 mounted on the base, a series of notches formed on said ring, a type ring 15 mounted within the ring 11, a lug on the type ring 15 to fit into the said notches, substantially as specified. 2nd. In a dating stamp, the combination of a base, a vertical standard connected to the central portion of the base, a spring operated dog pivoted to said standard, a ring 11 mounted on said base, said ring having a series of notches formed in it, a month ring 15 mounted within the ring 11, a lug fitted to the ring 15 to enter the said notches, an hour ring within the month ring having a series of ratchet teeth formed on its under side with which mesh the spring operated dog, substantially as specified. 3rd. In a dating stamp, the combination of a base, a ring 11 mounted upon the base, a vertical annular flange forming part of said ring and having a series of notches formed therein, a ring 34 mounted on the ring 11, and surrounding the ring 15, a thumb screw to lock together the rings 15 and 34, substantially as set forth. 4th. In a dating stamp, the combination of a base having numerals engraved thereon representing the months and the day, a ring 11 mounted on the base, a ring 15 within the ring 11, a ring 34 surrounding the ring 15, a ring 20 within the ring 15, and having formed on its under side a series of ratchet teeth 21, a ring 22 within the ring 20, a vertical standard centrally connected to the base, a spring operated dog pivoted to the standard, a notch formed in the under side of the ring 11, said dog working in said notch and adapted to mesh with the teeth on the under side of the ring 20 on each revolution of the base, and a platen to cause an imprint of the type on the said rings, substantially as specified. 5th. In a dating stamp, the combination of a base, a ring 11 mounted on the base, said ring having a notch formed on its under side, a ring 15 fitting within the ring 11, a ring 34 mounted on the ring 11 and surrounding the ring 15, means for adjustably locking the ring 15 to the ring 11, a ring 20 fitted within the ring 15, a series of ratchet teeth 21 formed on the under side of the ring 20, a vertical standard located centrally on the base and moving therewith, a spring operated dog pivoted to said standard to mesh with the ratchet teeth 21 to move the said ring, a ring 22 within the ring 20, and arranged to move with the said standard, type formed on each of the rings 15, 34, 20 and 22, a platen to cause an imprint of the recorded matter, substantially as specified. 6th. In a dating stamp, the combination of a base, a ring 11 mounted on the base, said ring having a notch formed on its under side, a ring 15 fitting within the ring 11, a ring 34 mounted on the ring 11, and surrounding the ring 15, means for adjustably locking the ring 15 to the ring 11, a ring 20 fitted within the ring 15, a series of ratchet teeth 21 formed on the under side of the ring 20, a vertical standard located centrally on the base and moving therewith, a spring operated dog pivoted to said standard to mesh with the ratchet teeth 21 to move the said ring, a ring 22 within the ring 20 and arranged to move with the said standard, type formed on each of the rings 15, 34, 20 and 22, a platen to cause an imprint of the recorded matter, and an inking pad to indicate the type on the said rings, substantially as specified. 7th. In a dating stamp, the combination of a base, a ring 11 mounted on the base, said ring having a notch formed on its under side, a ring 15 fitting within the ring 11, a ring 34 mounted on the ring 11 and surrounding the ring 15, means for adjustably locking the ring 15 to to the ring 11, a ring 20 fitted within the ring 15, a series of ratchet teeth 21 formed on the under side of the ring 20, a vertical standard located centrally on the base and moving therewith, a spring operated dog pivoted to said standard to mesh with the ratchet teeth 21 to move the said ring, a ring 22 within the ring 20, and arranged to move with the said standard, type formed on each of the rings 15, 34, 20 and 22, a platen to cause an imprint of the recorded matter, a ring loosely mounted on the standard having type formed thereon designating the portions of the day, and an arm to move the said ring to bring the type on the said ring into alignment with the platen, and an inking pad to ink the type on the said rings, substantially as specified.

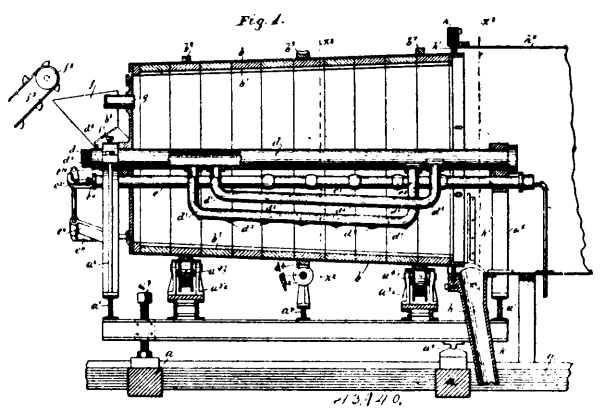
No. 43,939. Drum. (*Tambour.*)



John J. Magee, London, Ontario, Canada, 15th August, 1893; 6 years.

Claim.—1st. As a new article of manufacture, an expansion drum, consisting of adjustable sections F, provided with flanges G, having inclined planes H thereon, substantially as shown and described and for the purpose specified. 2nd. The adjustable sections F, provided with the flanges G, having inclined planes H thereon, in combination with a shaft A, having the inclined planes B, substantially as shown and described, and for the purpose specified. 3rd. A cylinder or drum, consisting of the adjustable sections F, F, provided with the flanges G, on which the inclined planes H are formed, and the heads C, C, in which the recesses E, E, are formed, in combination with the shaft A, formed with the inclined planes B, substantially as shown and described and for the purpose specified. 4th. A cylinder or drum, consisting of the sections F, F, provided with the flanges G, G, on which the inclined planes H are formed, and the heads C, C, provided with the flanges *d*, and in which the recesses E, E, are formed, and the spring bolts I, and springs *e*, in combination with the shaft A, formed with the inclined planes B, substantially as shown and described, and for the purpose specified.

No. 43,940. Furnace for Treating Refractory Ores. (*Fournaise pour le traitement des minerais réfractaires.*)



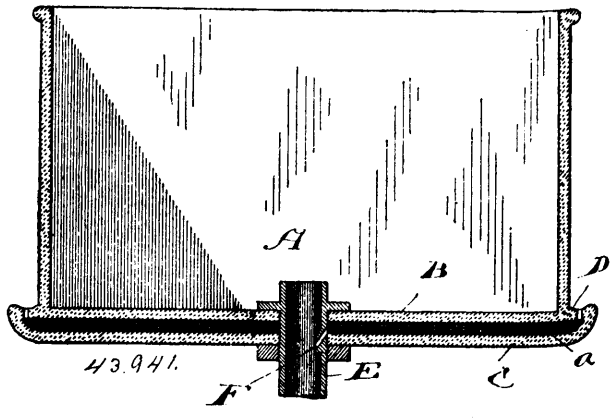
Tessenden C. Butterfield, Minneapolis, Minnesota, U.S.A., 15th August, 1893; 6 years.

Claim.—1st. A furnace for treating refractory ores or similar materials, comprising a rotary drum, arranged for supporting and agitating the ores on its interior surface, and a burner inside the drum for the direct application of flames to the ores, substantially as described. 2nd. A furnace for treating refractory ores or similar materials, comprising a rotary drum arranged for supporting and agitating the ores on its interior surface, and for receiving the ore at one end and discharging the same at the other, and a burner inside the cylinder for the direct application of flames to the ore, substantially as described. 3rd. A furnace for treating refractory ores and similar materials, comprising a rotary drum, the ore bearing surface of which is capable of assuming a downward pitch from its

receiving to its delivery end, and a burner inside the drum for the direct application of flames to the ores, whereby under the rotation of the drum the ores will be agitated and worked from the receiving to the delivery end of the drum, substantially as described. 4th. A furnace for treating refractory ores and similar materials, comprising a revolving drum closed at its receiving end and open at its delivery end, the ore bearing surface of which may take a downward pitch from its receiving to its delivery end, and a burner located within the drum for the direct application of flame to the ores, whereby the ore may be worked through the drum with a continuous action, substantially as described. 5th. A furnace for treating refractory ores and similar materials, comprising a rotary drum for carrying the ore on its interior surface, mounted for a tilting movement longitudinally of its axis, for giving to the same a variable pitch, and a burner inside the drum for the direct application of flames to the ores, substantially as described. 6th. The combination with the rotary drum, of the pivoted platform provided with means for securing the same in any desired adjustment, supports rising from said platform and carrying a burner located within the drum, for the direct application of flame to the ore, and means carried by said platform for supporting and revolving said drum, substantially as described. 7th. The combination with the pivoted rotary drum arranged to support and agitate the ores on its interior surface, of a burner located within the drum for the direct application of flames to the ores, a breeching for conducting off the volatilized products and the products of combustion, and a yielding joint between said drum and said breeching, substantially as described. 8th. The combination with the revolving pivoted drum, of the burner inside the drum, the breeching, the grooved rim on the breeching and the joint ring loosely seated in the groove of said rim and fitting the exterior of said drum, substantially as described. 9th. A furnace for treating refractory ores and similar materials, comprising a rotary drum lined with refractory material, such as fire clay or fire brick, and provided with a longitudinally corrugated or stepped surface, and a burner inside the drum for the direct application of flame to the ore, substantially as described. 10th. The combination, with the revolving drum, arranged to support and agitate the ores on its interior surface, of the burner inside the drum consisting of a fuel supply pipe around which the drum revolves, and tuyeres radially projecting from said supply pipe in position to deliver the flames into direct contact with the ores under the action of said drum, substantially as described. 11th. The combination, with the rotary drum, of the fuel supply pipe around which the drum revolves, provided with radially projecting tuyeres and adjustable in its seat to vary the discharging position of the tuyeres, substantially as described. 12th. The combination, with the revolving drum, arranged for supporting and agitating the ores on its interior surface, of a burner inside the drum, for the direct application of the flames to the ore, and a spraying pipe inside the cylinder for treating the ores with water or liquid solutions, substantially as described. 13th. The combination, with the revolving drum, arranged for supporting and agitating the ore on its interior surface, of a burner inside the drum for the direct application of flame to the ores, a spraying pipe inside the cylinder provided with valved discharge openings, and a valve controlling device operated by some of the moving parts with an intermittent action, substantially as described. 14th. The combination, with the revolving drum, arranged on a downward pitch, for supporting and agitating the ores and working the same from its receiving to its delivery end, of a burner inside the drum for the direct application of flames to the ores, a spraying pipe inside of the drum extending the entire length of the same, provided with valved discharge openings spaced apart from each other, and a valve controller operated by some of the moving parts, substantially as described. 15th. The combination, with the revolving drum, of the burner inside of the drum, for the direct application of flames to the ores, the spraying pipe inside the drum provided with the valved discharge openings, a common valve rod, under tension, to normally hold the said valves in their closed positions and a valved controller comprising a rocker operated by the drum, with an intermittent action, and provided with connections to said valve rod, substantially as described. 16th. The combination, with the rotary drum, of the burner inside the drum, the spraying pipe inside the drum provided with perforated valve seats and rotary valves normally covering said perforated seats, and connected by a common rod, for uncovering the whole or any part of the discharge openings through said seats, substantially as described. 17th. The combination, with the rotary drum, of the burner inside the drum, the spraying pipe inside the drum having perforated valve seats, rotary valves fitting said seats, a common valve rod, a rocker intermittingly operated by said drum, and a spring applied to hold said valve rod and rocker in their normal position. 18th. The combination, with the rotary drum, arranged for supporting and agitating the ore on its interior surface, the fuel supply pipe inside said drum and longitudinally thereof, provided with radially projecting tuyeres and a spraying pipe with valved discharge openings arranged parallel with and to one side of the tuyeres, substantially as described. 19th. The combination with the rotary drum, of the longitudinal fuel supply pipe provided with radially extended tuyeres inside the drum and adjustable into different positions, and the longitudinal spraying pipe provided with valved discharge passages and also adjustable into different positions relative to the tuyeres, substantially as described. 20th. The combination with the rotary drum, arranged as described, of the interior fuel supply pipe extending longitudinally of the drum and provided with radially projecting tuyeres set in advance of the lowest traverse of the drum and the spraying pipe with valved discharge openings inside the drum and set to discharge between the tuyeres and the lowest traverse line of the drum, substantially as and for the purpose set forth. 21st. The combination with the rotary drum arranged for supporting and agitating the ore on its interior surface, of the longitudinal fuel supply pipe inside the drum and the pair of yoke like radial tuyeres projecting from said supply pipe, one in advance of but near to the other, and having their respective discharge or burner openings in staggered arrangement with respect to each other, substantially as and for the purpose set forth. 22nd. The combination with the rotary drum arranged for supporting and agitating the ores on its interior surface, of a burner inside the drum, for the direct application of flames to the ores, a breeching for conducting off the products of combustion and the volatilized metals and a blast pipe applied to the receiving end of the furnace, above the burner for driving off said gases, substantially as described.

No. 43,941. Earthenware Water Tank.

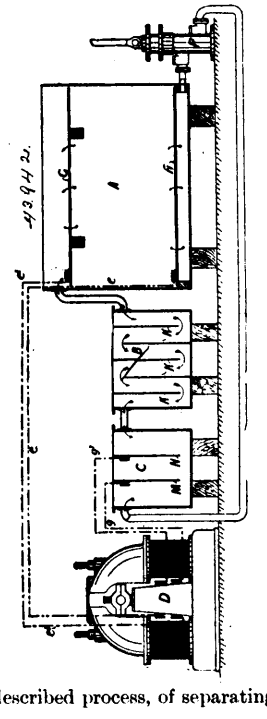
(*Réservoir de faïence pour l'eau.*)



William Baxter Malcolm, Toronto, Ontario, Canada, 15th August, 1893; 6 years.

Claim.—As a new article of manufacture, an earthenware tank having a double bottom projecting beyond the sides of the tank, an opening made into the space between the bottoms and an opening from the space into the escape pipe, substantially as and for the purpose specified.

No. 43,942. Process for Extracting Gold and Silver from Ores. (*Procédé pour extraire l'or et l'argent des minerais.*)



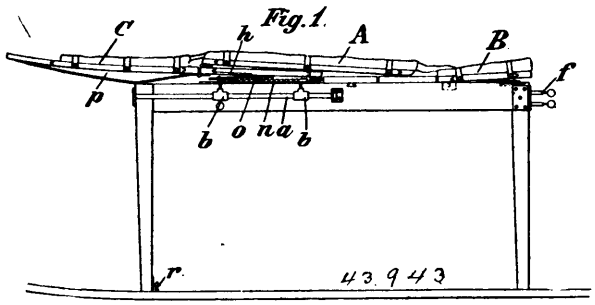
Charles Maria Pielsticker, 43 Connaught Road, Harlesden, London, England, 15th August, 1893; 6 years.

Claim.—1st. The process of separating gold and silver from their ores, which consists in treating the powdered ore with a solution of cyanide of potassium in conjunction with an electric current, depositing the precious metals constantly by means of a current of electricity of low tension and electrodes, of which the positive one is insoluble in cyanide of potassium, and bringing the cyanide of potassium solution, thus freed from dissolved metals, constantly again into contact with the ore, whereby I obtain a continuous process of extraction and precipitation, all substantially as hereinbefore described. 2nd. In the process of separating gold and silver from their ores by means of a solution of cyanide of potassium in conjunction with an electric current, bringing the cyanide of potassium solution, freed from dissolved metals, continuously into contact with the ore, substantially as described. 3rd. In the above described process, of separating gold and silver from ores by means

of a solution of cyanide of potassium in conjunction with an electric current, depositing the dissolved metals by means of electrodes contained in depositing tank or tanks, an electric current being passed through the ore tank and depositing tank, substantially as set forth. 4th. In the above described process of separating gold and silver from their ores by means of a solution of cyanide of potassium in conjunction with an electric current, treating the ore with an acid, in combination with a subsequent treatment of cyanide of potassium, in conjunction with an electric current, and continuous circulation of the solution, substantially as described. 5th. In the above described process of separating gold and silver from their ores by means of a solution of cyanide of potassium, in conjunction with an electric current, subjecting the ore and solution in the ore tank to an electric current of greater potential, and depositing the dissolved metals in a depositing tank by an electric current of lesser potential, substantially as described. 6th. In the above described process of separating gold and silver from their ores, in conjunction with an electric current, the use of a current of electricity of sufficient strength to decompose the double salt of cyanide of gold or silver and potassium without decomposing the cyanide of potassium itself. 7th. In the above described process, of separating the gold and silver from their ores, in conjunction with an electric current, the combination of an ore tank, with a settling and a depositing tank, substantially as described.

No. 43,943. Surgical Operation Table. (*Table d'opération.*)

Fig. 1.



Otto Grasemann, Gear, Prussia, German Empire, 15th August, 1893; 6 years.

Claim.—1st. An operating table for surgical purposes specially adapted for affording the "Trendelenburg Raised Position," and comprising a flap D, hinged at one end to planes A and C, and at the other end to racks, such as *n*, adjustable on side rods, the flap having props such as *o*, which engage with the racks, the lifting of the table being facilitated by the use of oblique ledges *p*, underneath the plane C. 2nd. In an operating table such as herein described, the employment of leg rests such as *i*, and foot rests such as *k*, which can be adjusted as desired, in order to enable the piece B to be used as a seat, and the plane A as a back rest, thus enabling the table to be employed as an examining and operating chair. 3rd. An operating table for surgical purposes, constructed substantially as described with reference to the accompanying drawings.

No. 43,944. Process of Treating Coffee.
(*Procédé de traitement du café.*)

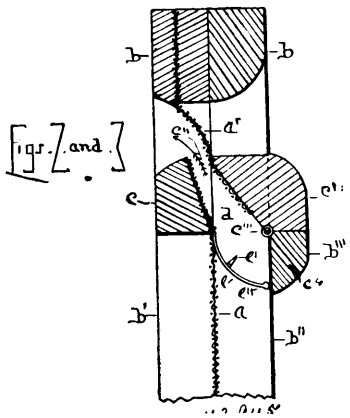
Carl Solomon, Brunswick, German Empire, August 15th, 1893; 6 years.

Claim.—The process of roasting coffee, consisting in first exposing it directly to contact with gases heated at a high temperature, whereby the empyreumatic matters are driven off, but the aromatic qualities are developed, then on the development of the aromatic matters, as indicated by the alkaline reaction of the escaping gases, quickly cooling the roasted material, all substantially as herein set forth.

No. 43,945. Insect Escape and Ventilator.
(*Echappatoire à mouche et insecte.*)

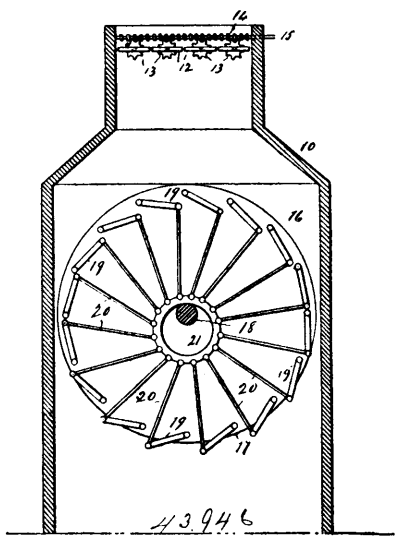
John Hopkins Selkreg, Ithaca, New York, U.S.A., 15th August, 1893; 6 years.

Claim.—1st. The combination of the screen frame, b, b^{11}, cross bars c, c^1, and screen fabric a^1, the inside surfaces of the bars c, c^1, being inclined outward toward the light or outer air, and the top inner edges of the said bars being closer together than their lower edges, and the said parts adjusted to each other, as set forth. 2nd. The closing lid b^{111}, hinged to the cross bar c^1, of the frame b, b^{11}, provided with the spring e, part to the cross bar c, the said spring being adjusted to hold the lip open or hold it shut by the spur e^1, as set forth. 3rd. A window screen frame, with bars c, c^1, between which is an insect exit, the bar c^1, having a portion which enters between the side rails of the screen frame, and also a portion extending beyond the face of the screen forming thereby a rigid bar for guarding the side insect exit, substantially as set forth. 4th. In combination with the screen made as described, I claim the separators



c^5, placed at intervals between the cross bars c, c^1, held in place by the tie pins, that hold the several parts together, as set forth.

No. 43,946. Water Wheel. (*Roue hydraulique.*)



Asa Bruce Frame, Boyden, Iowa, U.S.A., 15th August, 1893; 6 years.

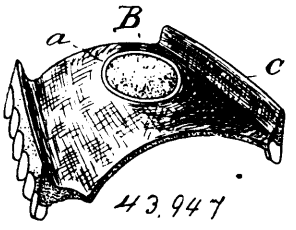
Claim.—1st. As an improved article of manufacture, a water wheel comprising opposite end pieces, a plurality of circumferentially arranged paddles on the end pieces, a driving shaft extending centrally through the wheel, and an eccentric mechanism carried by the shaft and arranged to shift the position of the paddles, substantially as described. 2nd. As an improved article of manufacture, a water wheel, comprising suitable end pieces, a plurality of paddles arranged circumferentially around the wheel and pivoted at their edges between the end pieces, a driving shaft extending through the end pieces, a gravity ring hung loosely on the shaft, and rods pivoted to the free edges of the paddles and to the peripheries of the ring, substantially as described. 3rd. The combination with the flume, of a driving shaft journalled therein and extending from one side thereof, end pieces secured to the shaft, a plurality of blades pivoted at their edges between the end pieces and forming the circumference of the wheel, a ring hung loosely on the shaft, and connecting rods pivoted to the free edges of the paddles and to the periphery of the ring, substantially as described. 4th. The combination with the flume and the water wheel therein, of a plurality of parallel gates arranged to close the flume above the wheel, and the worm gear mechanism for simultaneously shifting the gates, substantially as described.

No. 43,947. Process of Securing Dental Suction Valves to the Plates. (*Procédé pour assujétir les soupapes d'aspiration dentelés aux plaques.*)

Alfred Emmanuel Ahrens, Stratford, Ontario, Canada, 15th August, 1893; 6 years.

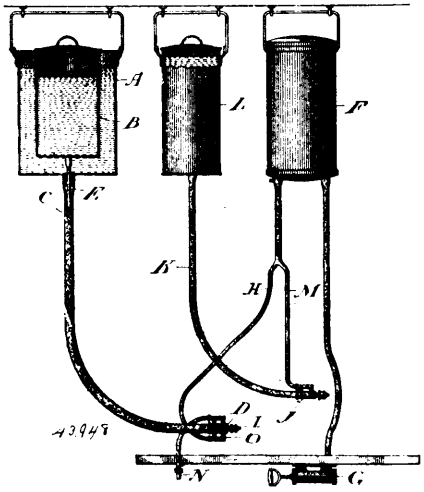
Claim.—The within described process for securing a dental suction valve to the plate, which consists in cementing the rubber disc to

the mouth cast or mould exactly in the position called for by the shape of the mouth, then placing the plate in position on the valve



and vulcanizing the two together, substantially as and for the purpose specified.

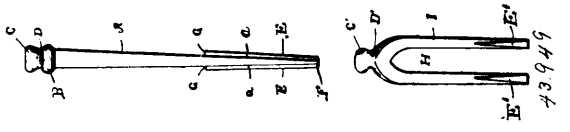
No. 43,948. Process for Forming Moulds.
(*Procédé pour la formation des moules.*)



George A. Peters, Toronto, Ontario, Canada, 15th August, 1893; 6 years.

Claim.—1st. An improved process for making a mould of an object or article by the throwing of a spray or fine stream of liquefied paraffine upon the object or article from which the mould is to be taken, substantially as and for the purpose specified. 2nd. The within described apparatus for making the mould of an object or article, consisting of an ejector connected by a tube to an elevated tank of melted paraffine, in combination with a tube connected to a reservoir of air under pressure and with the ejector, substantially as and for the purpose specified. 3rd. The within described apparatus for making a mould of an object or article, containing an ejector connected by a tube to an elevated tank of melted paraffine, a hot water tank within which the paraffine tank is placed, a tube leading from the hot water tank and surrounding the tube through which the paraffine passes, in combination with a tube connected to a reservoir of air under pressure and with the ejector, substantially as and for the purpose specified. 4th. The within described apparatus for making a mould of an object or article, consisting of a paraffine ejector, arranged as described, in combination with an ejector connected to a water tank and to a reservoir of air under pressure, substantially as and for the purpose specified.

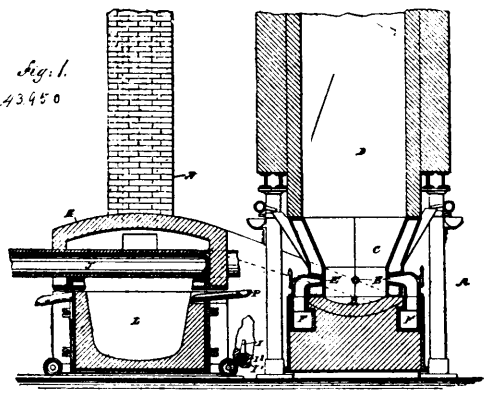
No. 43,949. Nails and Staples. (*Clous et crampons.*)



John E. Leathers, Peterboro', New Hampshire, U.S.A., 15th August, 1893; 6 years.

Claim.—In a driven fastener for wood, the driven shank having opposite flattened faces leading to its point and opposite triangular wedge-shaped projections projecting out from said opposite flattened faces and having their bases terminating flush with the point of the shank and of a width equal thereto, and their apices extending centrally up the flattened faces of the shank toward the driving head to form combined stop and cutting edges, substantially as set forth.

No. 43,950. Apparatus for Reducing and Smelting Sulphide Ores. (*Appareil pour réduire et fondre les minérais sulfhydriques.*)



Sidney Elliott Bretherton and Augustus L. Eugelbach, both of Leadville, Colorado, U.S.A., 14th August, 1893; 6 years.

Claim.—1st. An apparatus for reducing and smelting ores, comprising a blast furnace, a channel arranged in the wall of the crucible of the said blast furnace, tuyeres connecting the said channel with the interior of the said furnace, a combustion chamber connected with the said channel, an oven containing retorts connected with the said combustion chamber, the said oven serving to heat the air passing through the said retorts, and a nozzle extending into the said combustion chamber and through which passes a mixture of steam and oil. 2nd. An apparatus for reducing and smelting ores, comprising a blast furnace, a channel arranged in the wall of the crucible of the said blast furnace, tuyeres connecting the said channel with the interior of the said furnace, a combustion chamber connected with the said channel, an oven containing retorts connected with the said combustion chamber, the said oven serving to heat the air passing through the said retorts, a nozzle extending into the said combustion chamber and through which passes a mixture of steam and oil, and a furnace connected with one end of the said oven, substantially as shown and described. 3rd. An apparatus for reducing and smelting ores, comprising a blast furnace, a channel arranged in the wall of the crucible of the said blast furnace, tuyeres connecting the said channel with the interior of the said furnace, a combustion chamber connected with the said channel, an oven containing retorts connected with the said combustion chamber, the said oven serving to heat the air passing through the said retorts, a nozzle extending into the said combustion chamber and through which passes a mixture of steam and oil, and a spout connecting the crucible of the said oven, substantially as shown and described. 4th. An apparatus for reducing and smelting ores, comprising a blast furnace, a channel arranged in the wall of the crucible of the said blast furnace, tuyeres connecting the said channel with the interior of the said furnace, a combustion chamber connected with the said channel, an oven containing retorts connected with the said combustion chamber the said oven serving to heat the air passing through the said retorts, a nozzle extending into the said combustion chamber and through which passes a mixture of steam and oil, a spout connecting the crucible of the said blast furnace with the crucible of the said oven, and a series of outlet spouts for the separated products of the molten matter in the oven, substantially as shown and described. 5th. A furnace of the class described, comprising a furnace proper, having a recess, and a movable crucible adapted to be moved into or out of the said recess, substantially as shown and described. 6th. A furnace provided with a movable crucible for the molten products, substantially as shown and described. 7th. A furnace, comprising a furnace proper, and a wheeled crucible adapted to be moved into a recess in the said furnace proper, substantially as shown and described. 8th. A furnace provided with a crucible comprising a brick lined metallic box, a frame carrying the said box and provided with track wheels, an inlet spout for the molten metal arranged on the said box, and matte and slag discharge spouts also arranged on the said box, substantially as shown and described. 9th. A furnace, provided with a crucible comprising a brick lined metallic box, a frame carrying the said box and provided with track wheels, an inlet spout for the molten metal arranged on the said box, matte, slag and other products, discharge spouts also arranged on the said box, and means for fastening the said box to the said wheeled frame, substantially as shown and described.

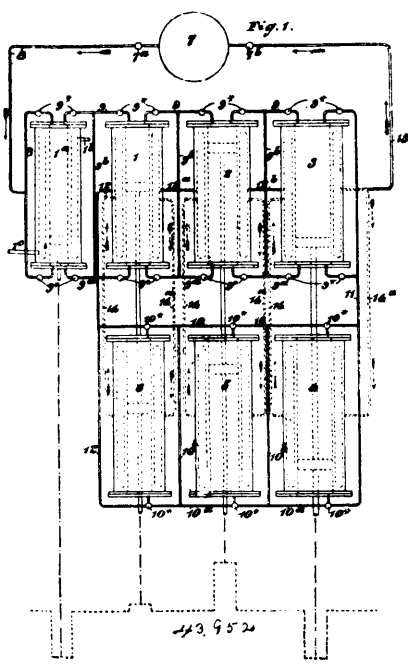
No. 43,951. Process for Reducing Sulphide Ores, &c.
(*Procédé pour réduire les minerais sulfhydriques.*)

Martin Wanner, Muncie, Indiana, U.S.A., 15th August, 1893; 18 years.

Claim.—1st. The described method of reducing sulphide ores, consisting in removing the gangue from the ore, reducing the remaining

sulphide or sulphides to fine particles, mixing them with carbon or hydro-carbon, heating the resulting mass in a closed retort, collecting and condensing the carbon bi-sulphide vapour and removing the reduced metal in a fluid condition, substantially as set forth. 2nd. The described method of reducing sulphide ores and simultaneously manufacturing carbon bi-sulphide, consisting in removing the gangue from the ore, finely dividing the remaining sulphide or sulphides, mixing them with carbon or hydro-carbon in fine condition, subjecting the mass to destructive distillation, collecting and condensing the carbon bi-sulphide vapour and removing the reduced metal in a fluid condition, substantially as set forth. 3rd. The described method of treating sulphide ores, containing volatile metals, which consists in removing the gangue from the ore, reducing the remaining sulphides to fine particles, mixing them with carbon or hydro-carbon, subjecting the mixture to destructive distillation, collecting and condensing the resulting carbon bi-sulphide and vapourized metal and drawing off the remaining metal, substantially as set forth. 4th. The described process of reducing sulphide ores, consisting in removing the gangue from the ores, reducing the remaining sulphide or sulphides to fine condition, mixing it with finely divided carbon, then moistening the mass with liquid hydrocarbon to prevent carrying over into the condenser and heating the product until the reduction is effected, substantially as set forth. 5th. The described process of reducing sulphide ores, consisting in removing the gangue from the ore, reducing the remaining sulphide or sulphides to fine condition, mixing it with finely divided carbon, then moistening the mass with liquid hydrocarbon, then baking or cooking it and heating the product until the reduction is effected, substantially as set forth.

No. 43,952. Apparatus for Converting Heat Into Work. (*Appareil pour convertir la chaleur en travail.*)

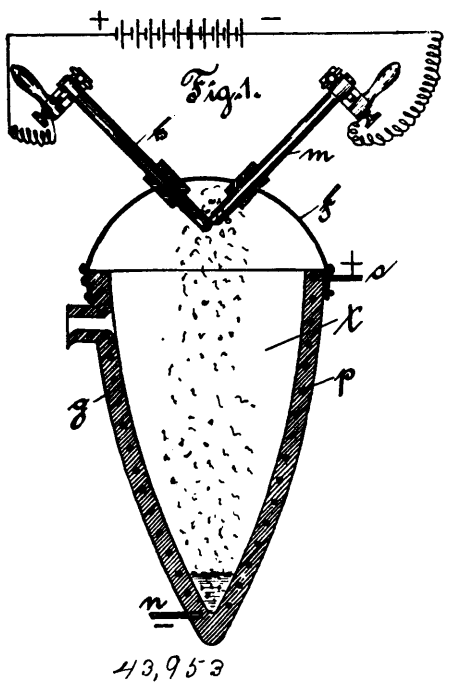


James Hawarth Parkinson, Stratford, Lancaster, England, 15th August, 1893; 6 years.

Claim.—1st. The method of converting heat into work, which consists in imparting the heat to a fluid of the kind herein referred to so as to generate motive fluid, allowing such motive fluid to expand and do work, compressing said motive fluid after such expansion and transferring heat produced by such compression to motive fluid undergoing expansion, substantially as described. 2nd. The method of converting heat into work, which consists in imparting the heat to a fluid of the kind herein referred to whilst the same is in a liquid condition as so to generate motive fluid, allowing such motive fluid to expand and do work, compressing and liquefying for re-use the exhaust fluid, and transferring heat produced by such compression and liquefaction to a further quantity of motive fluid, substantially as described. 3rd. The method of converting heat into work which consists in imparting heat to a liquefiable fluid so as to convert it into a gaseous form, superheating the gas thus obtained, allowing the superheated gas to expand and do work, compressing and liquefying for re-use the gas after such expansion, and transferring the heat produced by such compression and liquefaction to gas that is simultaneously undergoing expansion, substantially as described. 4th. The method of converting heat into work, which consists in subjecting a fluid of the kind herein referred to whilst it is in a liquid state to the heating action of a second fluid, such as water or air, having a higher temperature so as to convert the first fluid into gas under pressure, and to thereby reduce the temperature of the second fluid to such a point as to enable it to be used for refrigerating purposes, allowing the gas under pressure to expand and do work, compressing and liquefying the exhaust fluid for re-use, and transferring the heat produced by such compression and liquefaction of gas undergoing expansion, substantially as described. 5th. For converting heat into work in the manner described, apparatus comprising a gas generator, a fluid pressure motor in connection therewith, a heat restorer having its suction in connection with the exhaust of said motor, and its delivery in connection with said gas generator, a chamber arranged around said heat restorer, a chamber arranged in or around a vessel through which said fluid passes, and circulating pipes connecting said chambers, substantially as described for the purposes specified. 6th. For converting heat into work, apparatus comprising a gas generator, a fluid pressure motor in connection therewith, a superheater through which the gas under pressure flows from said gas generator to said motor, and a heat restorer for compressing the exhaust gas from said motor, having its suction in connection with the exhaust of said motor, and its delivery in connection with said gas generator, substantially as herein described. 7th. In apparatus for converting heat into work, the combination of a gas generator, a fluid pressure motor in connection therewith and having a jacketed cylinder, a heat restorer having its suction in connection with the exhaust of said motor and its delivery indirectly in connection with said gas generator, and circulating pipes connecting the jacket of said motor and heat restorer, the cylinders of said motor and heat restorer being each externally corrugated, substantially as herein described for the purpose specified. 8th. In apparatus for converting heat into work, the combination of a gas generator, a compound fluid pressure motor constructed with jacketed cylinders and connected with said generator, a heat restorer constructed with jacketed cylinder or cylinders and having its suction in connection with the exhaust of said motor and its delivery in communication through the jackets of said motor cylinders with the gas generator, and circulatiug pipes connecting the jackets of said motor cylinders with those of said heat restorer cylinders, substantially as described.

No. 43,953. Process of Melting by Electricity.

(*Procédé pour fondre par l'électricité.*)



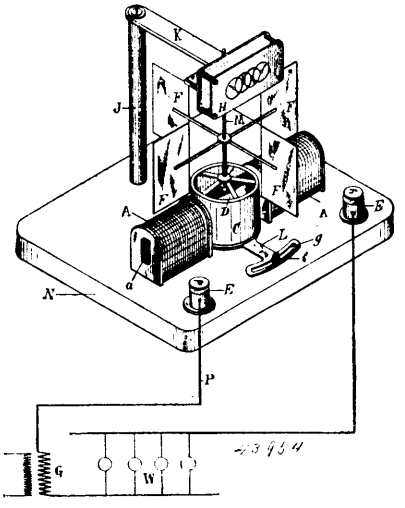
August Friedrich Wilhelm Kreinsen, Ottensen, Prussia, German Empire, 16th August, 1893; 6 years.

Claim.—1st. The method of melting metals and other materials by the aid of electricity, which consists in arranging the electrodes above an electrically heated crucible or receiver into which the metal or material drops as it is fused and in which it is remelted or maintained in the molten condition, substantially as hereinbefore described. 2nd. In an electric melting apparatus, the combination and arrangement with a carbon electrode of an electrode consisting of the material to be melted, an electrically heated crucible below the electrodes, and a cap for the crucible, substantially as herein-

before described and illustrated. 3rd. A crucible for melting or maintaining in the molten condition metals and other materials composed of a non-fusible substance and heated by a current passing through the substance of the crucible or a conductor arranged in or around the same, substantially as and for the purpose specified.

No. 43,954. Electric Motor. (*Moteur électrique.*)

Fig. 1



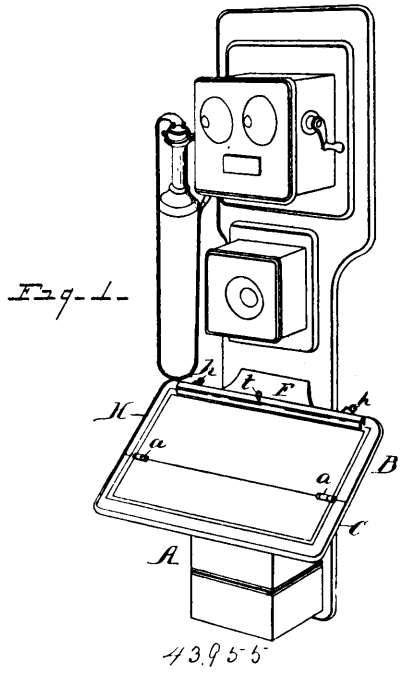
Thomas Duncan, Fort Wayne, Indiana, U.S.A., 16th August, 1893; 6 years.

Claim.—1st. In an electric transformer motor meter or motive device suitable for single and multiphase electric currents the combination of a rotating closed secondary and a primary coil or coils connected in the circuit or circuits carrying the current to be measured or used, and arranged in inductive relation to said closed secondary, all substantially as set forth and described. 2nd. In an electric transformer moter meter or motive device, suitable for single and multiphase electric currents, the combination of a rotary closed circuit or secondary and a primary coil or coils connected in the circuit or circuits carrying the current to be measured or used and arranged in inductive relation to said closed revolving secondary and an adjustable magnetic diverter, determining the angle of the lines of force induced by the coils to the rotative secondary, all substantially as described. 3rd. In an electric transformer motor meter for single and multiphase electric currents, the combination of a primary coil or coils located in the circuit or circuits of the system carrying the current to be measured, a closed revolving secondary acted upon inductively by said primary coil or coils and a retarding device, all substantially as hereinbefore set forth and described. 4th. In an electric transformer motor meter for single and multiphase electric currents, the combination of a primary coil or coils located in the circuit or circuits of the system of supply, a closed revolving secondary acted upon inductively by the said primary coil or coils, an adjustable magnetic diverter determining the angle of the lines of force induced by said coils, and a suitable retarding device, all substantially as set forth and described. 5th. In an electric transformer motor meter for single and multiphase electric currents, the combination of a primary coil or coils located in the circuit or circuits of the system of supply, a closed revolving secondary, an adjustable shunt wound diverter, and a proper retarding device, substantially as described. 6th. In an electric transformer motor meter for single and multiphase electric currents, the combination of a primary coil or coils located in the circuit or circuits of the system of supply, a closed revolving secondary, a magnetic or shunt wound diverter, a retarding device for governing the speed, and a recording or registering train, all substantially as described. 7th. In an electric transformer motor meter for single and multiphase electric currents, the combination of a primary coil or coils located in the circuit or circuits of the system of supply, a closed revolving secondary, the field strip or strips *d*, a magnetic diverter and a retarding device adapted to revolve with said closed secondary, all substantially as set forth and described. 8th. In an electric transformer motor meter for single and multiphase electric currents, consisting of one or more open or solenoid coils located respectively in the one or more circuits of the system, in combination with a rotating closed circuit or secondary in the form of a cylinder, the coil or coils being arranged around the cylinder with their axis substantially radial thereto, and enveloping the edges thereof without overlapping each other, and a diverter mounted concentrically with the cylinder and adjustable to determine the direction of the magnetic flux established by the coils, a retarding device, and a registering train actuated by the revolution of said secondary, all substantially as set forth and described.

9th. In an electric transformer motor meter for single and multiphase electric currents, the combination of one or more field coils located in the circuit or circuits of the system of distribution, and transversed by the current or currents to be measured, a closed revolving armature or secondary of low resistance and inductively acted upon by said field coil or coils, a shunt wound diverter and the resistance R in series therewith, a condenser shunted across the terminals of said resistance R, shunt diverter D or both, a retarding device of suitable construction, and a registering train all, substantially as set forth and described.

No. 43,955. Desk Attachment for Telephones.
(*Attache pour pupitres de téléphones.*)

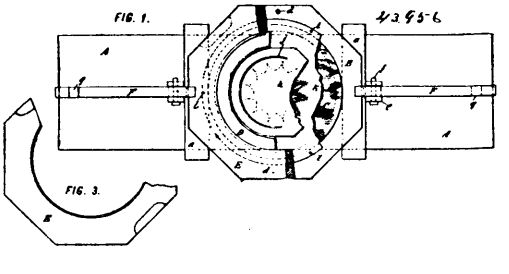
Fig. 1.



Lewis C. Butler, West Bay City, Michigan, U.S.A., 16th August, 1893; 6 years.

Claim.—1st. The combination with the battery box of a telephone, the desk attachment comprising the body having the extension leaf hinged thereto, the brackets and lugs attached to the under face of the body, the bail slidingly mounted on said brackets and lugs, and screws passing through said brackets. 2nd. In combination with the body having the hinged extension, the brackets and lugs on the under face of the body, the bail slidingly mounted on said brackets and lugs, and the thumb screws in said brackets. 3rd. The combination with the battery box of a telephone, the desk attachment comprising the body having the extension leaf hinged thereto, the extensible arm or bail adapted to support said leaf when extended, substantially as set forth.

No. 43,956. Process of and Apparatus for Packing Confectionery, etc. (*Procédé et appareil pour l'emballage des bonbons, etc.*)



John Randolph Stout, Brooklyn, New York, U.S.A., 16th August, 1893; 6 years.

Claim.—1st. The improved method of packing confectionery, consisting in laying a covering fabric on a suitable supporting surface, arranging a top layer of the confectionery in position thereover, subsequently placing the neck of the package in inverted position upon said fabric, filling said neck with the confectionery, affixing

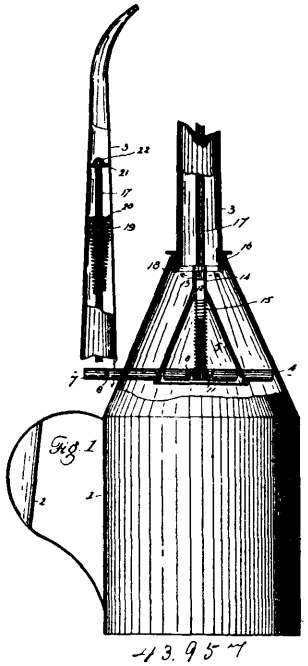
said covering fabric to the exterior of said neck, applying the bottom member of the receptacle in inverted position over said neck, and finally turning the receptacle and contents right side up, and applying the cover thereto. 2nd. The improved method of packing confectionery, consisting in laying a covering fabric on a suitable supporting surface, applying a wax paper or other suitable sheet thereover, and arranging the top layer of the confectionery on said wax paper (either before or after applying the latter in place), placing the neck of the passage in inverted position upon said fabric, filling said neck with the confectionery, affixing said covering fabric to the exterior of said neck, applying the bottom member of the receptacle in inverted position over said neck, and finally turning the receptacle and contents right side up. 3rd. The improved method of packing confectionery, consisting in laying a covering fabric on a suitable supporting surface, applying a ring centrally thereover, arranging the top layer of the confectionery within said ring (either before or after placing the ring in position), placing the neck of the package in inverted position on said fabric, partially filling in confectionery around said top layer, then lifting out said ring and completing the filling of the neck with confectionery, attaching the top covering fabric to the neck, and finally applying the bottom member of the package in inverted position over the neck and turning it and its contents right side up. 4th. The improved method of packing confectionery, consisting in laying a covering fabric on a flexible sheet suitably supported, placing the neck of the passage in inverted position over said garbric, filling the neck with confectionery, affixing the projecting edge of the covering fabric to the outside of the neck by applying gum to one or the other, and then bending up the projecting edge of said flexible sheet to thereby bend the edge of said covering fabric upward and press it against the neck so that the respective surfaces shall be gummed together, then applying the bottom member of the receptacle in inverted position over the said neck, and turning the receptacle and its contents right side up. 5th. The improved method of packing confectionery, which consists in laying down a lace paper or other suitable top covering fabric upon a supporting surface, separately preparing a top layer by placing a ring over a wax paper on a suitable supporting plate, and arranging the top layer in said ring, then placing the wax paper with its top layer in position on said covering fabric, subsequently removing the ring, placing the neck of the package in inverted position over said covering fabric, filling the neck with confectionery, and finally applying the bottom member of the package, and turning the package and it contents right side up. 6th. An apparatus for packing confectionery consisting of a packing block or board constituting a temporary cover, a flexible sheet thereover, a holder for the neck of the package, and means for turning the edge of said flexible sheet upward against the neck, for the purpose specified. 7th. An apparatus for packing confectionery consisting of a packing block or board constituting a temporary cover, a flexible sheet thereover, a holder for the neck of the package, and a ring surrounding said block having its opening larger than the exterior of said neck, and adapted on being lifted to turn up the edge of said sheet against the neck, for the purpose specified. 8th. An apparatus for packing confectionery consisting of a packing block or board constituting a temporary cover, a ring encircling it, so that the two constitute a sectional packing table, and a holder for the neck of the package adapted to center said neck relatively to said block and ring. 9th. An apparatus for packing confectionery consisting of a packing board or block constituting a temporary cover, a ring encircling it, so that the two constitute a sectional packing table, guides for centering a top covering on said table, a holder for the neck of the package, and reciprocal guides on said holder and table for centering the neck relatively to said block and ring. 10th. An apparatus for packing confectionery consisting of a packing block or board, means for holding it in place, a holder for engaging the neck of the package, and means for pressing down said holder to press the neck firmly against said board during the packing operation. 11th. An apparatus for packing confectionery consisting of a packing block or board, means for holding it in place, a holder for engaging the neck of the package, consisting of a ring encircling it, levers arranged to press down said ring, and means for holding said levers in engagement therewith. 12th. An apparatus for packing confectionery consisting of a packing block or board, means for holding it in place, a holder for engaging the neck of the package, consisting of a ring D, and means for pressing said ring down consisting of levers F F, and *f f* on which they are fulcrumed, and props *g g* for holding the levers in engagement. 13th. An apparatus for packing confectionery consisting of a packing block or board, means for holding it in place, a holder for engaging the neck of the package, consisting of a ring D, and means for pressing said ring down consisting of levers F F, having slotted end portions, pins *f f* engaged in said slots, and props *g g*, whereby when released the levers may be thrust outward to clear the ring. 14th. An apparatus for packing confectionery consisting of a packing block or board, on which to place the covering fabric and the neck of the package, and means for affixing the projecting edge of said fabric to the exterior of the neck, (gum having been applied thereto), consisting of a wiper movable upward from beneath said fabric and around said packing block, and constructed to exert an inward pressure, whereby it turns up the edge of said fabric and presses it against the exterior of the neck. 15th. An apparatus for packing confectionery consisting of a packing block or board, on which to place the covering fabric and the neck of the package, and means for affixing the projecting edge of said fabric to the exterior of the neck (gum having been applied thereto) consisting of a rigid ring movable upwardly around the neck, and a wiper carried thereby consisting of a sheet of elastic rubber having a reduced and contractile opening. 16th. An apparatus for packing confectionery consisting of a packing block or board, and a flexible sheet thereover, on which to place the covering fabric and the neck of the package, and means for affixing the projecting edge of said fabric to the exterior of the neck (gum having been applied thereto) consisting of an annular wiper movable upward from beneath said fabric and constructed to exert an inward pressure, whereby it turns up the edge of said flexible sheet and fabric and presses the latter against the exterior of the neck. 17th. An apparatus for packing confectionery consisting of a packing block or board on which to place the covering fabric and the neck of the package, the upper side of said block being of a diameter equal to that of the end of said neck which fits against it, and means for affixing the projecting edge of said fabric to the exterior of the neck (gum having been applied thereto) consisting of a wiper movable upward from beneath said fabric and around said block, constructed to exert an inward pressure and arranged to press against said block, and in its upward movement to be guided by the block and directed on to the neck. 18th. An apparatus for packing confectionery consisting of a packing block or board on which to place the covering fabric and the neck of the package, the upper side of said block being of a diameter equal to that of the end of said neck which fits against it, and said block being coned or bevelled extending from a smaller diameter beneath to said diameter at its upper side, and means for folding up the projecting edge of said fabric against the exterior of the neck consisting of a wiper constructed to exert an inward pressure and movable upward from beneath said fabric and around said block, and engaging the bevelled edge of said block, whereby it is extended and guided on to the mouth of the neck. 19th. An apparatus for packing confectionery consisting of a packing block or board on which to place the covering fabric and the neck of the package, and means for folding up the projecting edge of said fabric against the exterior of the neck consisting of a loose rigid ring adapted to be moved up around said block and neck and to be lifted freely off over the neck, and an annular wiper carried by said ring and constructed to exert an inward pressure against the exterior of said block and neck. 20th. An apparatus for packing confectionery consisting of a packing block or board on which to place the covering fabric and the neck of the package, and means for folding up the projecting edge of said fabric against the exterior of the neck consisting of a loose rigid ring adapted to be moved up around said block and neck, and a wiper carried thereby consisting of a sheet of elastic rubber having a reduced and contractile opening adapted to exert an inward pressure against said block and neck, and fastened to said ring so that its contractile tendency is limited thereby and the liability to crush or buckle the neck is avoided. 21st. An apparatus for packing confectionery consisting of a base, a removable packing block or board loosely mounted on said base on which to place the covering fabric and the neck of the package, and means for folding the projecting edge of said fabric up against the exterior of the neck consisting of a loose rigid ring encircling said block and adapted to be moved up around said block and neck and to be lifted off the neck, and an annular contractile wiper carried by said ring and constructed to exert an inward pressure against said block and neck, whereby in lifting said ring said wiper turns up the edge of said fabric and presses it against the neck, and whereby preparatory to packing the said loose block may be dropped within said ring to expand said wiper and be thereby adapted to guide the wiper around and on to the neck.

No. 43,957. Oil Can. (*Bidon à huile.*)

Robert McVicar, junr., Denver, Colorado, U.S.A., 16th August, 1893; 6 years.

Claim.—1st. An oil can provided with an interior air chamber located preferably in the upper portion thereof, an air passage from the outside of the can to said chamber, a stem having its lower extremity located in the can handle, the upper extremity extending through an opening in the top of the chamber and being provided with a valve normally closing said opening, and means of operating said stem from the outside of the can whereby air is allowed to pass from the air chamber to the interior of the can simultaneously with the opening of the spout for use, substantially as described. 2nd. The combination of an oil can of the interior air chamber normally closed from the oil chamber, a valve located in the spout, and a divided stem, the upper portion of said stem being located in the spout and connected with the valve, the lower portion of the stem being located within the air chamber, and suitable means actuated from the outside of the can whereby the lower portion of the stem is forced against the upper portion and the valve in the spout opened, substantially as and for the purpose set forth. 3rd. An oil can provided with an interior air chamber normally closed from the oil chamber, in combination with a removable spout provided with a valve normally closing the exit passage, said valve having a stem extending downward to the body of the can in combination with a stem located and supported in the air chamber and means connected with the body stem and actuated from the outside of the can whereby the body stem is forced against the spout stem and the valve in the spout opened, substantially as described. 4th. An oil can pro-

vided with an interior air chamber and a divided stem, the lower portion of the stem being located in the air chamber and provided

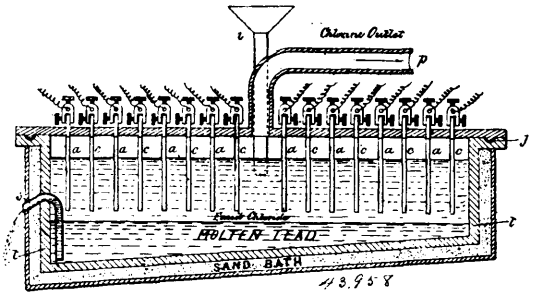


with a valve normally closing the air chamber from the oil chamber, the upper portion of the stem being located in the spout and connected with a valve therein, the two portions of the stem being adapted to engage but not attached to each other, and means actuated from the outside of the can whereby the lower portion of the stem is forced against the upper portion and the two valves simultaneously opened, substantially as described. 5th. An oil can having a valve located in the spout and provided with an interior air chamber communicating with the outer air and a divided stem, the upper portion of the stem being located in the spout and connected with the valve therein, the lower portion of the stem being provided with a valve normally closing the air chamber from the oil chamber. and means located partially within the air chamber, but actuated from the outside of the cam, whereby the air chamber and the valve in the spout are simultaneously opened, the one permitting the escape of air to the oil chamber, and the other the escape of oil from the can, substantially as described. 6th. An oil can provided with an interior air chamber, in combination with a removable spout, having a valve normally closing the exit passage therein, a divided stem composed of two distinct and separate parts adapted to engage, but not otherwise attached to each other, one part being located within the spout and the other within the air chamber, and means for operating said stem from the outside of the cam, whereby the valve in the spout is opened, substantially as described. 7th. An oil can provided with a valve located in the spout, in combination with a divided stem, composed of two distinct and separate parts, adapted to engage but not otherwise attached to each other, the upper portion of said stem being located in the spout and connected with the valve, a spring located in the spout and normally holding the valve against its seat, the lower portion of the stem being located in the body of the can, and suitable means actuated from the outside of the can, whereby the lower portion of the stem is forced against the upper portion and the valve in the spout opened, substantially as and for the purpose set forth. 8th. In an oil can, an air chamber, in combination with a stem located in the spout and the air chamber, and provided with two valves, one normally closing the exit passage of the spout, and the other normally closing the air chamber from the oil chamber, and means located partially within the air chamber, but actuated from the outside of the can, whereby the two valves are simultaneously opened, substantially as described.

No. 43,958. Method of Producing Chlorine and Purifying Lead and Recovering Silver. (*Production électrolytique du chlore pour des fins métallurgiques.*)

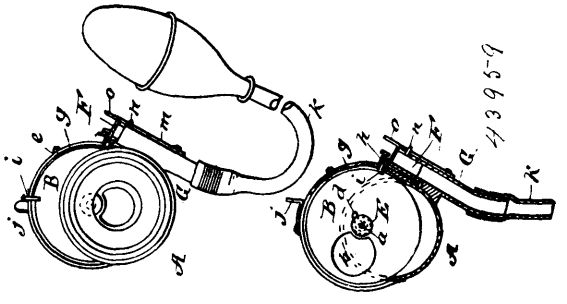
Farnham Maxwell Lyte, and Cecil Henry Maxwell Lyte, both of London, S. W., England, 16th August, 1893; 6 years.

Claim.—The herein described process of conjointly producing chlorine, purifying metallic lead, and recovering silver, based upon the decomposition of a soluble chloride, such as herein specified, by nitrate of lead, the said process consisting in the following cycle of operations, viz.: decomposing the soluble chloride with pure lead nitrate, to form lead chloride, and a nitrate, then, on the one hand, decomposing the lead chloride electrolytically whilst in a fused con-



dition, to produce chlorine and refined lead, and on the other hand decomposing, the nitrate to obtain nitric acid, oxidizing metallic lead (which has been freed from zinc) dissolving lead oxide in the nitric acid, and precipitating silver from the nitrate of lead solution to form pure nitrate of lead with which to continue the cycle of operations, all substantially as herein described.

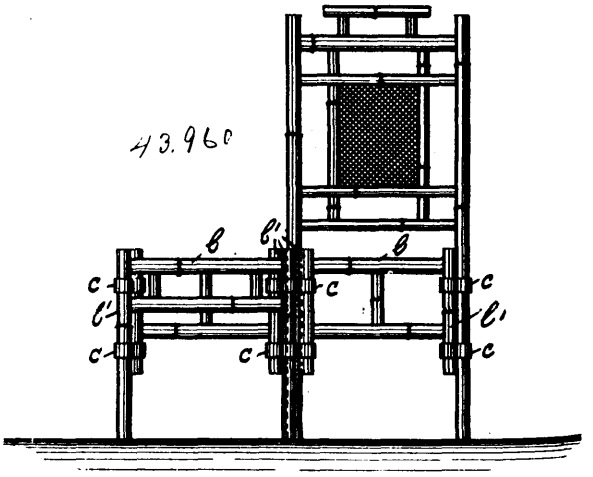
No. 43,959. Photographic Shutter.
(*Fermeture pour chambres photographiques.*)



Frank Rodgers Hoyt, Watkins, New York, U.S.A., 16th August, 1893; 6 years.

Claim.—In a camera shutter, the combination, with a support and a pivoted and spring actuated shutter carried by the support and provided with a notch in the periphery, of a spring catch having one end secured to the support and its free end engaging the notch of the shutter, said free end being provided with a stud, a pneumatic cylinder, and a piston in the cylinder, having a bevelled upper end adapted to engage the stud of the catch, substantially as and for the purpose set forth.

No. 43,960. Folding Furniture. (*Meuble pliant.*)

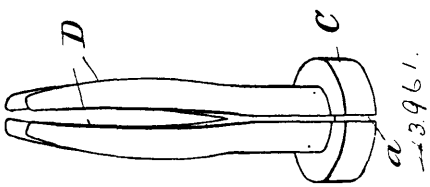


Heinrich Ludwig, Koburg, German Empire, 16th August, 1893; 6 years.

Claim.—1st. Furniture, such as chairs, sofas, tables, bedsteads, bassinettes or the like, consisting of a quadruple folding frame,

which for purposes of transport or storage or when not in use, may be reduced to a compact form, for which purpose the horizontal portion or plate forming the top, bottom or seat as the case may be, is removed and the frame composed of parts hinged together by double links or hinge rings *c*, thereupon folded together so as to form a flat piece. 2nd. The combination in furniture, such as infants' beds, etc., of an upper quadruple folding frame which may be reduced to a compact form by removing the horizontal portion or plate forming the bottom and folding together the frame, which is composed of parts hinged together by double links or hinge rings *c*, so as to form a flat piece and a lower frame also folding but independent of each other. 3rd. The connection of parts of furniture of the described construction by means of double links or hinge rings *c*, into which are inserted the vertical uprights or legs.

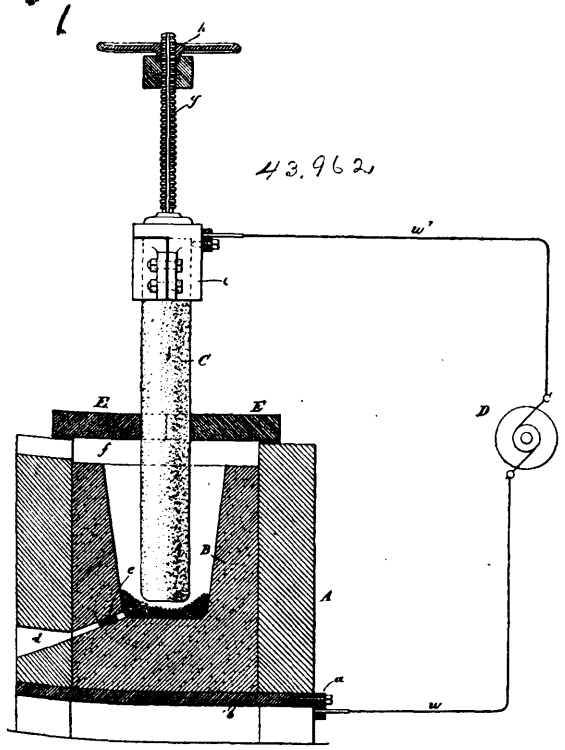
No. 43,961. Bobbin Fastener. (*Fermeture de bobine.*)



James Cook, Paris, Ontario, Canada, 16th August, 1893; 6 years.

Claim.—1st. The combination, with a mule or jack spindle, of a spring fastened to the spindle and designed to connect with the bobbin, substantially as and for the purpose specified. 2nd. The combination, with a mule or jack spindle, of an adjustable collar fitted on to the spindle and a spring designed to connect with the bobbin, substantially as and for the purpose specified.

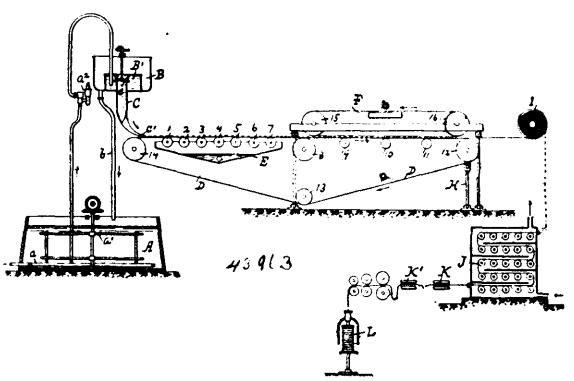
No. 43,962. Process of Electric Reduction of Refractory Metallic Compounds. (*Procédé de réduction électrique des composés réfractaires métalliques.*)



Thomas Leopold Willson, Leaksville, North Caroline, U.S.A., 16th August, 1893; 6 years.

Claim.—1st. The process of decomposing refractory compounds which consists in subjecting the compounds, while commingled with subdivided carbon in sufficient proportion to prevent the formation of a bath of fused compound to the continued heat of an electric arc between separated electrodes, one, at least, of which is arranged close above the material immediately under treatment, so that the arc is close above such material, whereby during the operation the fluctuations in the resistance of the arc which would be due to the presence and ebulition of such bath are avoided. 2nd. The process of deoxidizing refractory metallic compounds which consists in subjecting the compound, while commingled with subdivided carbon in sufficient proportion to prevent the formation of a bath of fused compound, to the continued heat of an electric arc between separated electrodes one above the other, such arc being close to the material immediately under treatment, whereby during the operation the fluctuations in the resistance of the arc which would be due to the presence and ebullition of such bath are avoided. 3rd. The process of reducing refractory metallic compounds which consists in subjecting the compound, while commingled with subdivided carbon in sufficient proportion to prevent the formation of a bath of fused compound, to the continued heat of an electric arc produced by passing a current in approximately vertical direction between separated electrodes, whereby during the reduction the fluctuations in the resistance of the arc which would be due to the presence and ebullition of such bath are avoided. 4th. The process of reducing alumina which consists in subjecting it, while commingled with subdivided carbon in sufficient proportion to prevent the formation of a bath of fused alumina, to the continued heat of an arc between separated electrodes one above the other, whereby during the reduction the fluctuations in the resistance of the arc which would be due to the presence of such bath are avoided. 5th. The process of reducing a refractory metallic compound which consists in commingling therewith a sufficient proportion of finely subdivided carbon as described, feeding the mixture into an electric arc, maintained between vertically separated electrodes, and maintaining it subject to the continued heat of such arc, where the formation of a bath of the fused compound is avoided.

No. 43,963. Process of Preparing Cellulose for the Manufacture of Spun Fabric. (*Procédé pour préparer le cellulose pour la fabrication des tissus de fil.*



Carl Kellner, Vienna, Austria, 18th August, 1893; 6 years.

Claim.—1st. The herein described process of rendering short fibres, particularly paper pulp, suitable for spinning purposes, by subjecting the fibrous materials whilst suspended in a large quantity of water, (either alone or mixed with longer fibres, bleached or unbleached, dyed or undyed, and with or without addition of resinate of alumina, oleate of alumina, or stearate of alumina, or of starch, chrome glue or albumen solution), to continual motion for a considerable period for the purpose of separating and stretching said fibres, in then bringing this liquid containing the fibres in suspension on to a siever-like fabric or band, and in then rolling up on the sieve-like fabric, the strip or strips of fibre felt thus formed, so that the fibres are united to form a thread or roving that is capable of further treatment. 2nd. In the process referred to in the preceding claim, dividing the fibre felt form on a metallic cloth into longitudinal strips, by causing the metallic cloth to slide over surfaces that are composed of bars *c*, arranged at determined distances apart in the direction of movement of the said metallic cloth, or by providing rows of coarse meshes c^1, or of impermeable strips c^2, or of dividing bands c^3, of material such as india rubber, felt or cloth placed in or on the metallic cloth, said rows of meshes, strips or bands being arranged at distances apart equal to the desired width of strip. 3rd. In the process specified in claim, catching or receiving the liquid issuing in a fine stream or jet and containing the fibrous materials in suspension, on a sieve band D, guided by a series of pulleys of gradually decreasing peripheral concavity, so that the band has at this part of its travel the form of a channel of gradually decreasing shallowness, substantially as herein described. 4th. In the process specified in claim, rolling up the fibre felt form on the sieve band *a*, by bands F, arranged to travel in the same direction as the said sieve band, and the guide pulleys of which rotate in a vibrating or reciprocating frame G or G^1, in which case the end of that part of the sieve band that carries the fibre felt may also receive a to-and fro movement, or *b*, by rolling up rollers F^1, which in addition to a rotary movement in the same direction as the sieve band D, have a to-and-fro axial movement in a direction at right angles to the direction of travel of the sieve band, or *c*, by guiding the sieve bands carrying the fibre felt in such a manner that on their return travel to the receiving place they will cross and come in contact with that part of the sieve band carrying the fibre felt

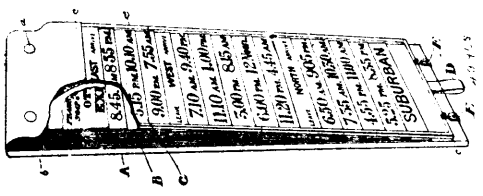
and cause the said fibre felt to be rolled up and removed in the form of a thread or roving from the sieve band, as set forth. 5th. In the process specified in claim 1, rolling up the fibre felt strips, formed on the sieve by means of conical rollers *p*, rotating in a direction perpendicular to the direction of the movement of the sieve. 6th. In the process specified in claim 1, rolling up the fibre felt strips upon a couching felt *r*, by means of rubbers *t*, *t*^{1}, arranged one behind the other and working with successively increasing pressure.

No. 43,964. Process of Producing Tough Cast-Iron Bodies. (*Procédé pour produire des corps en fonte dure.*)

Wilhelm Aurel Polster, Bautzen, Saxony, 18th August, 1893; 6 years.

Claim.—The method or process of producing tough and high resistance castings of various description and of various metals or alloys, by first placing metal netting or woven wire in suitable position in the mould and then surrounding the same with the molten metal forming the general body of the casting, substantially as herein described.

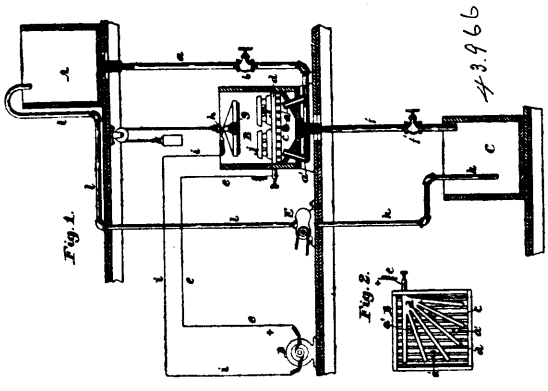
No. 43,965. Time Table. (*Tableau horaire.*)



John Francis O'Brien, Montreal, Quebec, Canada, 18th August, 1893; 6 years.

Claim.—1st. A condensed time table consisting of a series of flaps arranged one above the other in step fashion, the narrow margins or tread of the steps having the arrival and departure of a train indicated thereon, and the steps being flexibly connected by hinges to a board, in combination with the transparent cover also having a flexible hinge, arranged as and for the purpose specified. 2nd. In combination with the flaps B, having the margins B^1 arranged in step fashion and being connected to the board A, by the flexible hinges of the glass cover also flexibly hinged at the top and connected to the board and the lifting tape D, as and for the purpose specified. 3rd. The combination with the flaps B, having the margins B^1, and arranged in step fashion and being connected to the board A by the flexible hinges, of the glass cover also flexibly hinged at the top and connected to the board, the lifting tape D and the spring clasps E, as and for the purpose specified. 4th. The combination with the flaps B, having the margins B^1 arranged in step fashion and being connected to the board A, by the flexible hinges, of the glass cover also flexibly hinged at the top and connected to the board, and the advertising spaces above the description and times of the trains, as and for the purpose specified. 5th. The combination with the flaps B, having the margins B^1 arranged in step fashion and being connected to the board A by the flexible hinges, of the glass cover also flexibly hinged at the top and connected to the board, and the advertising spaces on the back of each flap, as and for the purpose specified.

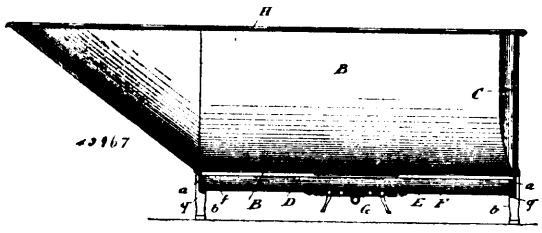
No. 43,966. Process of Manufacturing White Lead. (*Procédé de fabrication du blanc de plomb.*)



Arthur Benjamin Browne, Cambridge, Massachusetts, U. S. A., 18th August, 1893; 6 years.

Claim.—1st. The process of manufacturing white lead, which consists in placing a body of metallic lead to be acted upon in a solution of a nitrate or an acetate of an alkaline base, which, under the influence of an electric current, will separate into a solvent of lead at one pole and an alkaline hydrate at the other pole, and simultaneously electrolyzing said solution by causing a current of electricity to flow from the metallic lead through said solution, whereby a lead hydrate is precipitated, and finally allowing said lead hydrate to dry in the air or other atmosphere containing carbonic acid. 2nd. The process of manufacturing white lead, which consists in placing the metallic lead to be acted upon in a suitable vessel, and in electric connection with the positive side of a source of electric force to form the anode of the bath, causing a solution of a nitrate or an acetate of an alkaline base, which, under the influence of an electric current, will separate into a solvent of lead at the anode, and an alkaline hydrate at the cathode, to flow into said vessel and submerge said anode and the cathode, causing a current of electricity to flow from said anode through said solution to produce the reaction necessary to dissolve said anode and form a soluble salt of lead, causing said salt of lead to be precipitated to form a lead hydrate, causing said solution, holding in suspension the lead hydrate, to flow into the settling tank or vessel, allowing the lead hydrate to settle, drawing off the solution from which the lead hydrate has been precipitate, and then exposing said lead hydrate to an atmosphere containing carbonic acid and allowing it to dry.

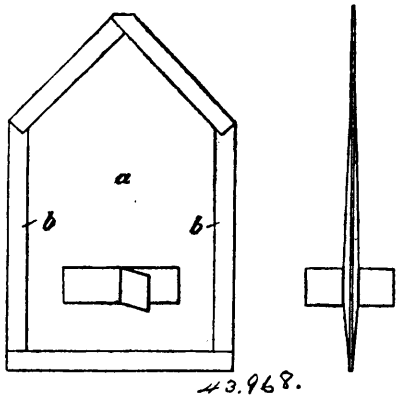
No 43,967. Bath Tub. (*Baignoire.*)



Frederick James Haworth Hazard, Toronto, Ontario, Canada, 18th August, 1893; 6 years.

Claim.—1st. A bath tub, having a chamber formed below its bottom and provided with means for heating said chamber, substantially as and for the purpose specified. 2nd. A metal frame for the end of a bath tub, and consisting of corner posts shaped to receive and hold the wooden side casing, a cross flange to support the bottom of the wooden casing and a curved cross flange to support the inner casing, substantially as and for the purpose specified. 3rd. A metal frame for the end of a bath tub and consisting of corner posts *d*, shaped to receive and hold the wooden side casing, a cross flange *e*, to support the wooden casing, a curved cross flange *a*, to support the inner casing, a flange *g*, and a flange *h*, substantially as and for the purpose specified. 4th. A bath tub, composed of a metal lining B, resting at each end on a curved flange *a*, in combination with a wooden casing held by the posts *d* and flange *h*, substantially as and for the purpose specified. 5th. The combination, with a metal lining forming the bottom of the bath, of one or more girders extending longitudinally of the said bath and forming a support for its bottom, substantially as and for the purpose specified.

No. 43,968. Spraying Ball. (*Pulvérisateur.*)



Oskar Scherff, Leipzig, Saxony, 18th August, 1893; 6 years.

Claim.—A bellows for insect and other powder consisting of a paper bag filled with the desired powder, the sides of the bag being provided with strips by means of which they may be drawn apart and pressed together, the powder being thus dusted out through a suitable hole, substantially as herein shown and described.

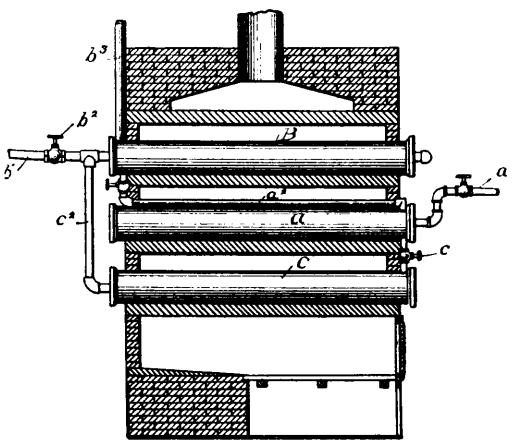
No. 43,969. Process of Charging Liquid with Carbonic Acid Gas. (*Procédé de charger les liquides de gaz d'acides carboniques.*)

Albert Landerer, Leipzig, Saxony, German Empire, 18th August, 1893; 6 years.

Claim.—1st. The method of manufacturing tablets or pellets for restoring the carbonic acid gas to beverages which have become stale or insipid, consisting of subjecting the materials for generating the carbonic acid gas, either separately or combined with indifferent material or materials not readily soluble to pressure, whereby the tablet or pellet so formed is prevented from becoming quickly dissolved, and the generation of carbonic acid gas is rendered more gradual and prolonged, substantially as herein described. 2nd. The use in the manufacture of tablets or pellets for restoring the carbonic acid gas to beverages which have become stale or insipid, of the dry residual compounds of salts of natural mineral waters, in the manner and for the purposes herein set forth.

No. 43,970. Process of Manufacturing Gas.

(*Procédé de fabrication du gaz.*)

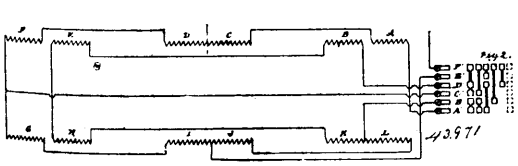


Frank D. Moses, Chicago, Illinois, and Edward S. Austin, Minneapolis, Minnesota, both of U.S.A., 18th August, 1893; 6 years.

Claim.—1st. The process of manufacturing a gaseous product, which consists in first vaporizing any suitable hydro-carbonaceous matter at a proper heat, then fixing the resulting vaporous product at a higher heat, and then mixing atmospheric air in suitable quantity with the resulting gas, while both the air and the gas are subjected to a strong heat of a temperature below that of ignition of the mixture or of injurious decomposition of the gas, substantially as and for the purpose described.

No. 43,971. Electric Heater for Cars.

(*Appareil de chauffage électrique pour les chars.*)

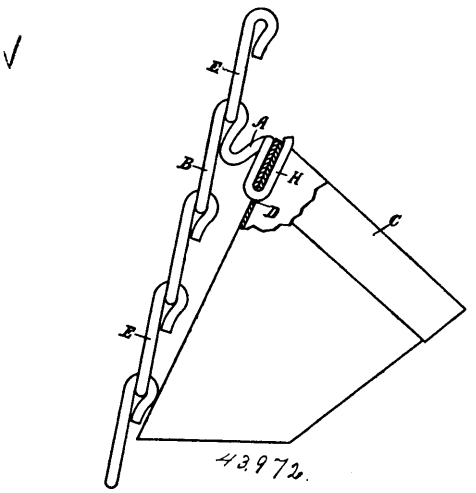


The Consolidated Car Heating Company, assignee of James F. McElroy, all of Albany, New York, 18th August, 1893; 6 years.

Claim.—1st. In an electric heating system, the combination of a series of electrical heaters, an electric switch, electrical connections joining said heaters, electrical conductors arranged in connection with said switch, electric connections between said heaters and said conductors, said heaters and connections so arranged that by the operation of the switch an electric current may be passed through all of the heaters in circuit, or the heating surface may be divided or arranged in series, or in multiple, substantially in the manner set forth. 2nd. In an apparatus for heating by electricity, the combination of a series of electrical heaters, an electric switch, a means for conducting the electricity to all of the heaters, or to two-thirds of them, or to one-half of them, or to one-third of them, or by uniting certain portions of the heaters in multiple, the one with the other, substantially as described and for the purpose set forth. 3rd. In a mechanism for heating a car by electricity, the combination of a car, a series of electric heaters placed within said car, two of said heaters placed on each side and at each end of the car, and two of said heaters placed about midway between the ends on each side of the car, a means for introducing electricity to the heaters within said car, substantially as described and for the purpose set forth.

No. 43,972. Elevator Cup Attachment.

(*Attache pour godets d'élevateurs.*)

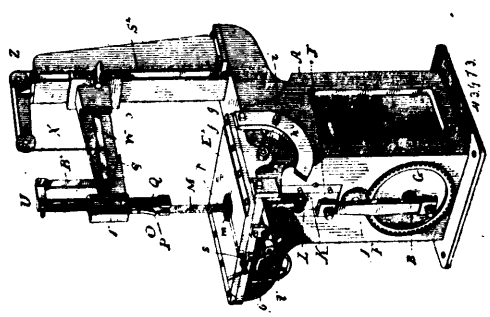


Manson Campbell, assignee of William H. Emerson, both of Chatham, Ontario, Canada, 18th August, 1893; 6 years.

Claim.—1st. An elevator cup attachment consisting of a body B, formed with the lateral arms A, A, in combination with the cup C, and means for connecting said arms and said cup together, substantially as described and for the purpose specified. 2nd. As a new article of manufacture, an elevator cup attachment consisting of a body B, formed with the lateral arms A, A, and the returned ends H, H, substantially as shown and described and for the purpose specified. 3rd. The body B, provided with the lateral arms A, A, and the returned ends H, H, in combination with the elevator cup C, substantially as shown and described and for the purpose specified. 4th. As a new article of manufacture, an elevator cup attachment consisting of a body B, formed with the lateral arms A, A, and the returned ends H, H, the latter being outwardly inclined as well as the cup C, secured thereto from the line in which the body B, is travelling, for the purpose of delivering the grain clear and free from the elevator, substantially as described and for the purpose specified. 5th. The body B, provided with the lateral arms A, A, and the returned ends H, H, in combination with the elevator cup C, and a carrier belt E, substantially as shown and described and for the purpose specified.

No. 43,973. Key Seat Cutting Machine.

(*Machine à couper les rainures pour siège de clef.*)

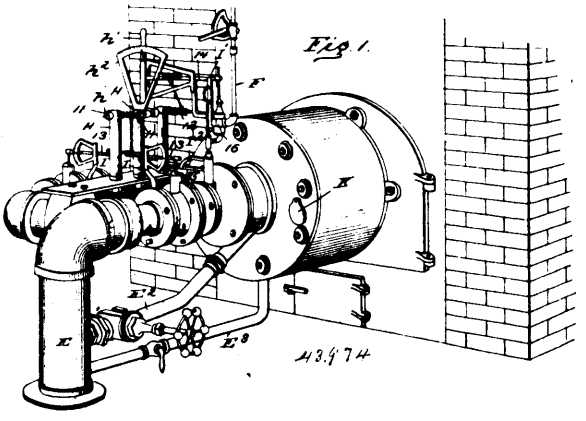


MacGregor Gourlay & Co., assignees of Alexander Graham Gourlay, William Ewart and Thomas Cummings Robertson, all of Galt, Ontario, Canada, 18th August, 1893; 6 years.

Claim.—1st. In a key seat cutting machine, a reciprocating cutter in combination with one or more friction rollers against which the said cutter bears, substantially as and for the purpose specified. 2nd. In a key seat machine, the reciprocating cutter M, in combination with the spindle N, arranged to guide the head of the said cutter, and vertically adjustable in a head suitably connected to the frame of the machine, substantially as and for the purpose specified. 3rd. In a key seat machine, the combination of the reciprocating cutter M, connected to the block O, sliding in a dove-tailed groove in the spindle N, which is vertically adjustable in a head suitably connected to the frame of the machine, substantially as and for the purpose specified. 4th. In a key seat machine, the arm S vertically adjustable on the standard S^1, in combination with the spindle N, vertically adjustable on the said arm S, and arranged to support the upper end of the reciprocating cutter N, substantially as and for the purpose specified. 5th. In a key seat machine, the combination of the reciprocating cutter M, block O, spring latch P, grooved spindle N, arm S, standard S^1, lever W, link B^1 connected

to the spindle N, and a weight *a* connected to the lever W by a cord carried over one or more grooved pulleys, substantially as and for the purpose specified. 6th. In a key seat machine, a reciprocating cutter in combination with a table pivoted to the frame of the machine, and means whereby the said table may be held at any desired angle to the line of travel of the cutter, substantially as and for the purpose specified. 7th. In a key seat machine, a reciprocating cutter in combination with a table pivoted to the frame of the machine, an eccentric whereby the angle of the table to the line of travel of the cutter may be altered, and a clasp to hold the table in any desired position, substantially as and for the purpose specified. 8th. In a key seat machine, a sliding plate in combination with a cam, and mechanism whereby the motion of the cam is conveyed to the said table to draw it into working position, substantially as and for the purpose specified. 9th. In a key seat machine, a sliding plate having a lug projecting from it, in combination with a spindle screwed through the said lug, a lever operated by a cam to bring the said spindle and plate into the working position, and a spring to withdraw them therefrom, substantially as and for the purpose specified. 10th. In a key seat machine, a divided mandrel formed on a slotted disc fitting into a recess in a plate carrying the work, in combination with means whereby the mandrel and disc may be sprung outwardly, substantially as and for the purpose specified. 11th. In a key seat machine, the combination of the divided mandrel *p*, the slotted disc *m* fitting into a recess in the plate E^1, and the block *r* operated by an adjusting screw *s*, and having a wedge shaped point adapted to enter the slot in the said disc, substantially as and for the purpose specified. 12th. In a key seat machine, a divided mandrel formed on a slotted disc fitting into a recess in a plate carrying the work, and having its rear edge dovetailed to grip the rear edge of the said recess, in combination with an adjustable block *r*, having the sides of its point converging both forwardly and downwardly and fitting the correspondingly shaped end of the slot in the said disc, substantially as and for the purpose specified.

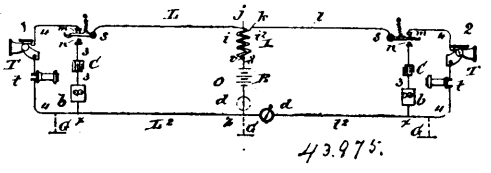
No. 43,974. Process of Making Combustible Gas from Petroleum. (*Procédé pour faire du gaz combustible du pétrole.*)



Julius Leede Lambert and Daniel B. Burdett, all of Minneapolis, Minnesota, U.S.A., 19th August, 1893; 6 years.

Claim.—1st. The combination of a combustion chamber having air inlet ports around its sides, and separate injector post through one end and valved air conduits communicating with the chamber through said ports, substantially as described. 2nd. The combination of a combustion chamber having air inlet ports around its sides and separate inlet port through one end, and means consisting of valved conduits and air under pressure for supplying and regulating a desired relative volume of air to the chamber through the respective ports, substantially as described. 3rd. The combination of a primary combustion chamber having inlet port at one end, an enlarged supplemental combustion chamber adjacent to the primary chamber having air port and means, as valved conduits and air under pressure for regulating and supplying the proper relative volume of air through the several ports, substantially as described. 4th. The combination of a combustion chamber having inlet ports around its sides and a separate port at one end, oil supply pipe, oil valve, air conduits leading to the different passages, air valves, and a rock shaft for simultaneously operating the said valves, substantially as described. 5th. The combination of a combustion chamber, oil supply pipe, means, as a blast, for spraying the oil, adjustable oil nozzle and a valve having one edge in a plane with and adjustable with said nozzle, substantially as described. 6th. The combination of a combustion chamber having air inlet ports around its sides and separate inlet port through one end, oil valve, movable oil nozzle, air valve adjacent to the oil nozzle, air conduits leading to the different inlet ports, valves in said conduits, a rock shaft carrying laterally extending arms and links connecting the arms, valve and nozzles, substantially as described. 7th. The combination of a primary combustion chamber, an enlarged supplemental combustion chamber in front of said primary chamber, the heating chamber of an ordinary furnace in advance of these combustion chambers, and means for feeding air under pressure to all the combustion chambers, substantially as described. 8th. A furnace for burning liquid or gaseous fuel, consisting of the combination of a fuel supply pipe, a primary combustion chamber having air inlet ports around its sides and separate port through one end leading to said chamber, air blast pipes discharging through said ports, as enlarged supplemental combustion chamber and the heating chambers of an ordinary furnace, substantially as described. 9th. A boiler furnace for burning liquid or gaseous fuel, embracing the combination of a primary combustion chamber having endwise and lateral air passages, means for feeding the fuel to said chamber, means for feeding air under pressure through said air passages and an enlarged supplemental combustion chamber, substantially as described. 10th. The combination of a primary combustion chamber having ports around its sides and separate port at one end for the admission of air, an oil pipe for supplying oil in rear of said chamber, air ducts or pipes for conducting air under pressure through the side and end ports to said chamber, an enlarged supplemental combustion chamber, an air duct for supplying air pressure to said supplemental chamber, and fire and heating chamber beneath the boiler, substantially as described. 11th. A furnace involving the combination of a primary combustion chamber having air inlet ports around its sides and separate port in one end, an oil feed, a forced air feed leading to the inlet ports of the combustion chamber, an enlarged supplemental combustion chamber and forced air feed leading to said supplemental chamber, said chamber being arranged outside the main heating region of a furnace, substantially as described. 12th. The combination of a primary combustion chamber having air inlet ports around its sides and separate port in one end, means, as an oil pipe, for supplying oil to said chamber, and an enlarged supplemental combustion and heating chamber partially filled with refractory material, and means, as pipes and air under pressure, for forcing air into the primary chamber through its passages and to said enlarged chamber, substantially as described. 13th. The combination of a primary combustion chamber having side air inlet passages and separate end inlet, oil supply pipe, a supplemental combustion and heating chamber, means for forcing air into the primary chamber and into said supplemental chamber adjacent to the primary chamber, a converting chamber filled with refractory material and discharge pipe for conducting the product from the apparatus, substantially as described. 14th. The process herein described of producing combustible gas, which consists in raising a mass of refractory material to incandescence, then passing through said mass the products of imperfect combustion of fuel, substantially as described.

No. 43,975. Telephone Transmitter Circuits.
(*Transmetteur de circuit de téléphone.*)

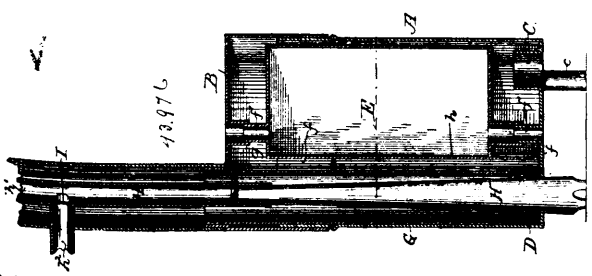


The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignees of Hammond V. Hayes, Cambridge, Massachusetts, U.S.A., 19th August, 1893; 6 years.

Claim.—1st. Two telephone circuits, each extending from a substation to the same central station and completed or closed through a section of conductor common to both, which common conductor includes an electrical generator, such as a storage battery, and an induction coil interposed between the said generator and one of the conductors of the said circuit, and having its two helices or windings included in the said two circuits, respectively. 2nd. The combination, of two telephone circuits extending from sub-stations to the same central station, each provided at its sub-station with suitable transmitting and receiving telephones, and both completed at the central station through a section of conductor common to both, a battery of low internal resistance included in said common section, of both circuits and supplying both with currents, and an induction coil, the two helices or windings of which are of like length and resistance, located at the central station, and having its said helices connected in the said two circuits, respectively, whereby each circuit when transmitting constitutes the primary and when receiving the secondary circuit of said induction coil, substantially as described. 3rd. A compound telephone circuit extending between two terminal stations through an intermediate station, provided at each terminal station with receiving telephones and variable resistances, transmitters, and constituting a single conversation circuit, composed of two independent battery circuits, the battery being common to both, and included in a bridge or branch between the direct and return conductors at the intermediate station, combined with an induction coil, the two windings of which are substantially alike and connected respectively, in the said two battery circuits, substantially as described. 4th. A compound telephone circuit extending between two terminal stations

through an intermediate station, a transmitting and receiving telephone at each terminal station, an induction coil at the intermediate station, having its two windings or helices in series in the direct conductor of said circuit, and an electrical generator, such as a storage battery, in a bridge or derevation extending from the return conductor to a point on the direct conductor between the said two helices of said induction coil, substantially as described. 5th. The combination, in a system of centralized transmitted batteries, of a number of telephone circuits, each extending from sub-stations to a central station, and each provided at its sub-station with suitable transmitting and receiving telephones, switch connections for connecting said circuits in pairs for through communication and for simultaneously establishing a bridge or derivation between the two conductors at the two circuits concerned, a battery of low internal resistance adapted to be included simultaneously in the bridge circuit, of several such pairs, and an induction coil for each pair, having its two helices connected, respectively, in the two circuits constituting such pair, substantially as described. 6th. The combination, in a compound telephone circuit extending between two sub-sections through a central station, of a main line transmitter battery therefor, and a disconnecting annunciator included in the said circuit or in a derived circuit thereof, with two branch circuits at the sub-stations, one including the telephones and the other including a condenser and a call bell, and an automatic switch actuated by the removal of the telephone from its support to close the battery circuit by connecting the telephone branch and by the replacement of said telephone to break the battery circuit by connecting the bell and condenser branch, whereby the replacement of said telephone is enabled to automatically operate the disconnecting signal.

No. 43,976. Heating and Ventilating Drum.
(*Poêle sourd et ventilateur.*)



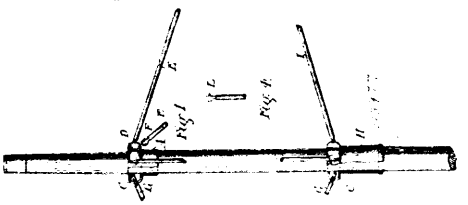
Robert Pugh and Wallace Grovenor, both of Castleton, North Dakota, U.S.A., 19th August, 1893; 6 years.

Claim.—1st. The combination of the drum, the partition dividing t into two chambers, between which there is a communication, the smoke pipe entering the bottom of one of the chambers, the air heating casing situated in the said chamber directly over the smoke pipe, and the exit pipe G, opening into the other chamber near its bottom, substantially as set forth. 2nd. The combination of the drum, the partition dividing it into two chambers between which there is a communication near the top of the drum only, the smoke pipe entering the bottom of one of the chambers, the air heating casing situated in the said chamber, and the exit pipe G, opening into the other chamber near its bottom, substantially as set forth. 3rd. The combination of the drum, the air heating casing situated within the drum and having one wall which forms a partition dividing the drum into two chambers of unequal size which communicate with each other only near the top of the drum, the said air heating casing extending across the larger of the said chambers, the smoke pipe entering the larger chamber directly below the casing, and the exit pipe opening into the smaller chamber near its lower end or bottom, substantially as set forth. 4th. The combination with the drum, of the inlet smoke pipe opening into the drum near its bottom, the air heating casing within the cylinder and having a portion extending below its bottom to shut off communication at this place between the main portion of the drum and its exit flue, substantially as set forth. 5th. The combination, with the exit smoke pipe, of a pipe H, opening into the apartment near the floor, and extending into and longitudinally through the smoke pipe and having two exit openings, one into the smoke pipe and the other into an apartment to be heated, and a valve in the pipe H, for controlling its discharge, substantially as set forth. 6th. The combination, with the drum A, the inlet pipe C, and the exit pipe G, of an air heating casing within the drum having communication at its top and bottom with the air of the apartment, and a pipe H, extending longitudinally for a portion of its length through the exit flue and opening into the apartment near the floor surface, and below the lower opening of the air heating casing into the apartment, and having its upper end also provided with an opening into the apartment, substantially as set forth.

No. 43,977. Umbrella Frame.
(*Monture de parapluie.*)

Frederick Giles, South Yarra, and John Palerson, Melbourne, both of Victoria, Australia, 19th August, 1893; 6 years.

Claim.—1st. In umbrella frames, constructing the notch piece so as to contain an inner annular chamber into which vertical slots are cut in such a manner as to permit a disc or similarly shaped head of a rib to be entered edgewise and turned crosswise for the purpose of



forming an articulation, substantially as set forth. 2nd. In umbrellra frames, constructing the runner piece so as to contain an inner annular chamber into which vertical slots are cut in such a manner as to permit a disc or similarly shaped head of a stretcher to be entered edgewise and turned crosswise for the purpose of forming an articulation, substantially as set forth. 3rd. In umbrella frames, constructing the head of a main rib or a stretcher in the form of a disc in such a manner as to enable the disc to from an articulation when introduced in position in a slot, and annular channel provided for the purpose in a notch piece or runner as and for the purposes set forth. 4th. In umbrella frames, the alternate construction of forming the head of the rib or stretcher in a T-shape, substantially as and for the purposes set forth. 5th. In umbrella frames, the alternate construction of the notch piece and runner in which the slot terminates in a circular opening in such a manner as to permit a spherical head of a rib or stretcher to be introduced into an annular channel formed in the notch piece or runner for the purposes of articulation, substantially as set forth. 6th. In umbrella frames, articulating the stretcher to the rib by means of a disc and a slotted recess formed in a connecting piece affixed to the said rib, substantially as and for the purposes herein set forth. 7th. In umbrella frames, a clip piece as O, terminating in a disc spherical or cross-head, and constructed in such a manner as to be easily attachable to the broken end of a rib or stretcher, substantially as and for the purposes described and as illustrated on the accompanying drawing.

No. 43,978. Lubricator. (*Graissseur.*)

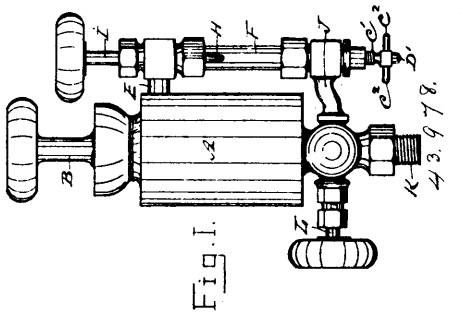


Fig. 1.

Thomas J. Carroll, Hamilton Ontario, Canada, 19th August, 1893; 6 years.

Claim.—1st. The adjustable oil and air drain-cock with upper end formed as at C, for valve in lubricator, the through aperture D, in connection with vertical aperture D^1, and threaded at C^1, and provided with manipulating arms C^2, substantially as and for the purpose hereinbefore set forth. 2nd. The combination, with the down-drop sight feed lubricator as described, and the adjustable oil and air drain-cock connected to the lower part of the oil discharge of said lubricator, substantially as and for the purposes hereinbefore set forth.

No. 43,979. Spool Holder. (*Porte-bobine.*)

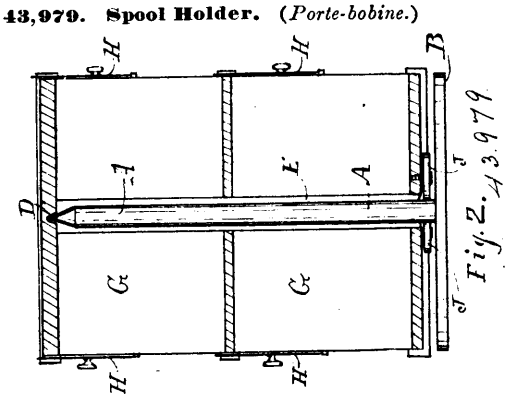


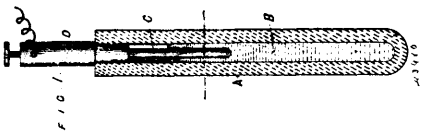
Fig 2.

Thomas Hoag and John Edmond Wallace Branan, both of Alvinston, Ontario, Canada, 19th August, 1893; 6 years.

Claim.—In a spool and article holder, the combination of a cylinder C, having compartments G, doors H, hollow E, and socket

D, of a standard A, having a base block B, of wire work L, substantially as and for the purpose hereinbefore set forth.

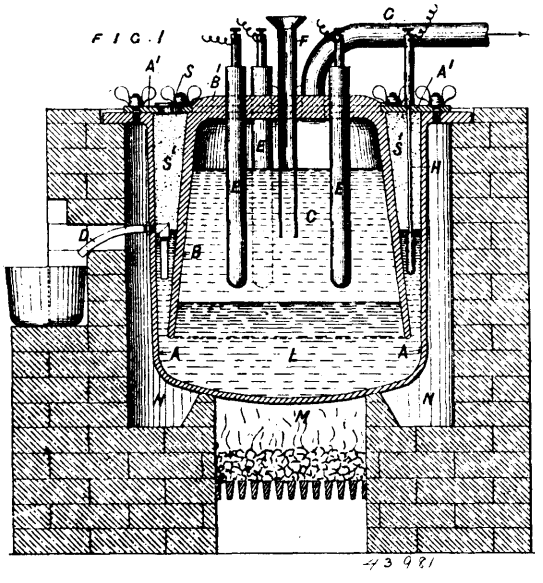
No. 43,980. Electrolytical Decomposition of Metallic Salts. (*Décomposition électrolytique des sels métalliques.*)



Farnham Maxwell Lyte, London, S. W., England, 19th Augus 1893; 6 years.

Claim.—1st. The combination with a hollow carbon electrode closed at bottom, of a core of metal or alloy which is fusible at or below the temperature at which the electrolytic decomposition of a fused metallic salt is to be performed, substantially as specified. 2nd. The combination with a hollow carbon electrode closed at bottom, of a core of metal or alloy which is fusible at or below the temperature at which electrolytic decomposition of a fused metallic salt is to be performed, and of a terminal conductor of metal not fusible at that temperature which is plunged into the fusible core, and is free from the carbon so as to exert no bursting strain whatever thereon, substantially as specified.

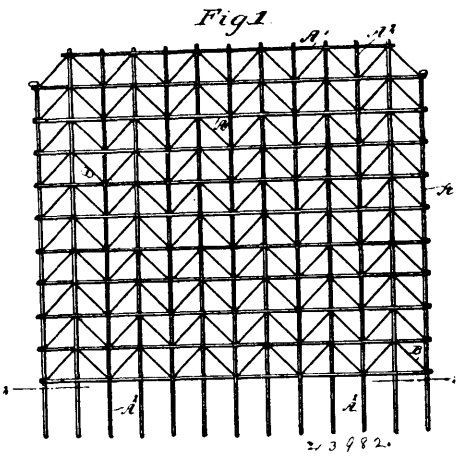
No. 43,981. Process of Electrolytically Decomposing Fused Metallic Chlorides. (*Procédé de decomposition électrolytique des chlorures métalliques en fusion.*)



Farnham Maxwell Lyte, London, S. W., England, 19th August, 1893; 6 years.

Claim.—1st. In the process of electrolytically decomposing fused metallic chlorides, the method which consists in effecting the electrolytic decomposition within a bell chamber, whose mouth is sealed by dipping into molten metal corresponding to the base of the chloride treated and resulting in part from the decomposition of the said chloride, substantially as specified. 2nd. In the process of electrolytically decomposing fused metallic chlorides within a bell chamber, the method which consists in sealing the mouth of the bell chamber against the escape of chlorine whilst permitting the reduced metal to run off as fast as it is produced by causing the mouth of the vessel to dip into a bath of molten metal corresponding to the base of the chloride treated, and resulting in part from the decomposition of the chloride, as specified. 3rd. The herein described apparatus for effecting the electrolytic decomposition of metallic chlorides, consisting in the combination with a directly heated pan or vessel having an overflow outlet for the reduced metal, of an electrolytic decomposition cell in the form of a bell chamber having an outlet for the chlorine generated, and an inlet for the chlorine to be treated, and containing electrodes which are immersed in the chloride to be decomposed, and of a bath of molten metal corresponding to the base of the chloride treated, into which the mouth of the bell chamber dips so as to be thereby sealed, and a protective layer of charcoal sand or equivalent pulverulent material covering the molten metal between the pan and bell to prevent access of air thereto, substantially as specified.

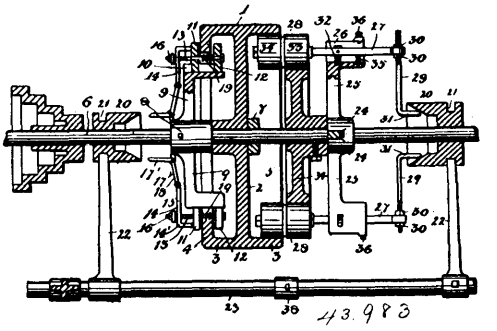
No. 43,982. Wire Structures. (*Natte en fil de fer.*)



Joshua Horrocks, Brooklyn, New York, U.S.A., 19th August, 1893; 6 years.

Claim.—1st. A mat or like metal structure, the same consisting of a wire mesh and plates longitudinally waved and provided with apertures at their points or angular portions, the plates crossing the meshes and the wires of the mesh passing through the apertures in the plates, as and for the purpose specified. 2nd. As an improved article of manufacture, a mat, panel or like structure, the same consisting of crimped or corrugated wire woven in meshes, and metal plates of serpentine or zig-zag construction located between parallel strands of wire forming the mesh, the other wire strands being passed through the metal plates, as and for the purpose specified. 3rd. As an improved article of manufacture, a mat, panel or like article, consisting of strands of wire corrugated or crimped and arranged in longitudinal and transverse strands, forming meshes, the strands of wire being interlocked, a series of metal strips or plates of zig-zag or serpentine form, said plates being located between each two parallel strands of wire, running in one direction, the edges of the plates facing the sides of the structure, the cross strands being passed through the apertures made in the points or angular portions of the plates at their ends, substantially as and for the purpose set forth.

No. 43,983. Reversing Mechanism for Counter Shafts. (*Mécanisme de relevage pour contre-arbres.*)



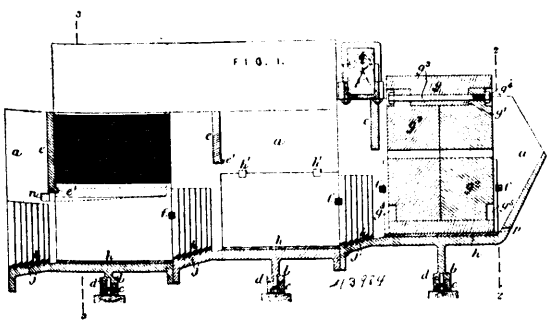
Fred. Holderman, Bowling Green, Ohio, U.S.A., 19th August, 1893; 6 years.

Claim.—1st. In a reversing mechanism for counter shafts, an armed hanger, pivotally secured in each arm, a shaft journalled in the hanger, a frictional wheel secured upon the shaft, a pulley loose upon the shaft, rollers upon each of the levers of a length to bear upon the wheel and pulley, and means for rocking the levers to cause the rollers to contact with the wheel and pulley. 2nd. In a reversing mechanism for counter shafts, the counter shaft, the pulley loosely mounted thereon having an annular clutch face, an armed hub upon the shaft gripping jaws running in a groove in each arm of the hub, one gripping jaw being on each side of the clutch face, rods passing through the jaws on each arm, having heads, levers abutting against said heads to close the jaws, bell crank levers fulcrumed upon said hub and pivoted to said first named levers, and a collar loosely mounted on the main shaft and having an internally cone-shaped recess and mechanism for shifting said collar. 3rd. In a reversing mechanism for counter shafts, the counter shaft, the pulley loosely mounted thereon having an annular clutch face, an armed hub upon the shaft, gripping jaws movably secured in each arm, and embracing the annular clutch face, a rod passing through the jaws having a head on

each end, a right angled lever, a bell crank lever pivoted at one end of said first named lever, the other end bearing against one of the jaws, and mechanism for operating the bell crank lever to close the jaws, in combination with a spring on the rod between the jaws to open the same when the bell crank is released. 4th. In a reversing mechanism for counter shafts, the counter shaft, the pulley loosely mounted thereon having an internal clutch face, a friction wheel secured upon the shaft, an armed hanger upon the shaft, levers pivoted in each arm of the hanger, rollers upon the levers of a length to bear upon the wheel and pulley arms secured to the outer ends of said levers, an internally cone-shaped collar on the shaft and mecanism for moving the collar to cause the rollers to bear on the wheel and pulley. 5th. In a reversing mechanism for counter shafts, the counter shaft, a pulley loosely mounted thereon, a friction wheel secured thereto, a stationary armed hanger upon the shaft, levers pivoted in the arms of said hanger, rollers upon the levers adapted to bear on said pulley and wheel when pressure is applied to the levers, spring bearings for said levers adapted to raise the levers and disengage the rollers from the pulley and wheel when pressure is withdrawn from the levers.

No. 43,984. Mineral Concentrator and Pulverizer.

(*Concentrateur de minerais pulvérisateur, etc.*)

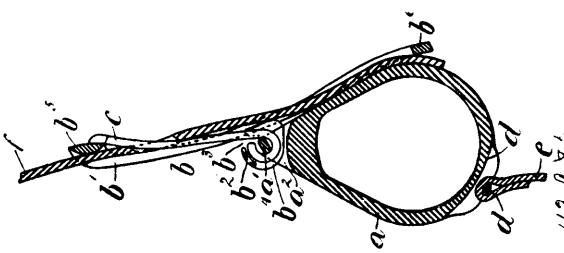


Basil John Atturbury, Briston, Surrey, England, 19th August, 1893; 6 years.

Claim.—1st. The combination of a trough, means for rocking the trough, compartments in the trough, the bottom of each compartment being lower than that of the preceding one and a roller or rollers in each compartment. 2nd. The combination of a trough, compartments in the trough, the bottom of each compartment being lower than that of the preceding one, ripples or collecting surfaces between the compartments and a roller or rollers in each compartment. 3rd. The combination of a trough, means for rocking the trough, compartments in the trough, the bottom of each compartment being lower than that of the preceding one, ripples or collecting surfaces between the compartments, chambers in the sides of the compartments, strainers between the compartments and chambers, passages leading from the chambers to above the ripples or collecting surfaces and a roller or rollers in each compartment. 4th. Apparatus, substantially as described and shown in the drawings.

No. 43,985. Fastening for Harness.

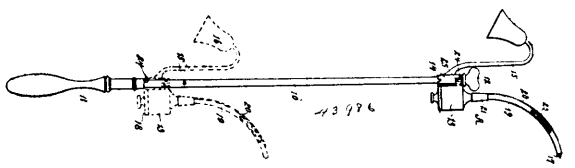
(*Attache pour harnais.*)



Samuel Henry Haas, Logan Station Montgomery County, Pennsylvania, U.S.A., 19th August, 1893; 6 years.

Claim.—1st. A fastener for parts of harness, comprising a buckle frame having one of its transverse members bifurcated to form a claw with a terminal, a tongue, and a thill tug or other part of harness provided with a member adapted to engage said claw and hold the two parts together when a buckle frame is in normal position and detachable therefrom through said terminal when in abnormal position, substantially as and for the purpose described. 2nd. A fastener for parts of harness, comprising a buckle having one of its cross-bars bifurcated to form a claw with a flat terminal, a tongue, and a thill tug or other part of harness provided with a flat cross-bar adapted to engage said claw and hold the two parts together when the buckle is in normal position and detachable therefrom through said terminal when in abnormal position, substantially as and for the purposes described.

No. 43,986. Candle and Gas Lighter and Extinguisher. (*Appareil pour allumer et éteindre les chandelles et le gaz.*)

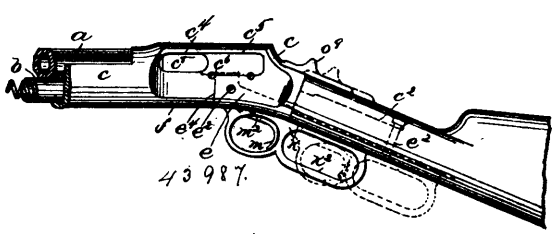


Rudolph Geissler, New York, City of New York, U.S.A., 19th August, 1893; 6 years.

Claim.—1st. As an improved article of manufacture, a candle and gas lighter and extinguisher, the same consisting of a standard and a combined lighter and extinguisher having sliding movement upon the standard, the lighter and extinguisher having a locking connection with the standard near its top and bottom, substantially as shown and described. 2nd. In a candle and gas lighter and extinguisher, the combination with a standard, of a gas lighter having sliding movement thereon and locking connection therewith, the said lighter consisting of a receptacle provided with a spout or nozzle, and said receptacle being adapted to receive a coiled wick or taper, the said wick or taper extending through the spout or nozzle, as and for the purpose set forth. 3rd. In a candle and gas lighter and extinguisher, the combination with a standard, of a lighter having sliding movement upon the standard and a locking engagement therewith, the lighter consisting of a receptacle adapted to contain a coiled wick or taper, and a spout emanating from the receptacle, the spout being provided with slots produced in opposite sides, as and for the purpose set forth. 4th. In a candle and gas lighter and extinguisher, the combination with a standard provided with a key at one end, of a gas lighter having sliding movement upon the standard, and a locking engagement therewith, the said lighter consisting of a sleeve loosely mounted upon the standard, a receptacle attached to the sleeve, a tube emanating from the receptacle, and a strengthening plate held in engagement with the tube, as and for the purpose set forth. 5th. In a candle and gas lighter and an extinguisher, the combination with a standard having a key located at one end thereof, of a sleeve having a sliding and locking connection with the standard, a receptacle attached at one side of the sleeve, provided with a tube or nozzle having a slot produced in opposite sides, and an arm projected from the opposite side of the sleeve, the said arm being provided with an extinguisher, substantially as and for the purpose specified. 6th. In a candle and gas lighter and extinguisher, the combination with a standard provided with a key at one end, and pins located one near each end, of a sleeve having sliding movement upon the standard and provided with a bayonet slot in its ends adapted to receive the said pins, a receptacle connected with the sleeve, provided with a nozzle, and an extinguisher likewise connected with the sleeve, as and for the purpose set forth. 7th. In a candle and gas lighter, a receptacle, and a wick or taper coiled in the receptacle and extending upwardly therefrom, as and for the purpose specified. 8th. In a candle and gas lighter and an extinguisher, the combination with a receptacle and a tube or nozzle connected therewith, the said tube or nozzle being provided with slots at opposite sides, of a wick or taper coiled in the receptacle and extending into and out through the tube or nozzle, as and for the purpose set forth.

No. 43,987. Breech Loading Small Arms.

(*Arme à feu se chargeant par la culasse.*)

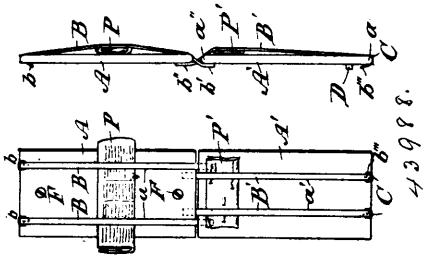


Derrick Sumner West, Boston, Massachusetts, U.S.A., 19th August, 1893; 6years.

Claim.—1st. In a breech loading fire arm a barrel and receiver, an abutment in the receiver to the rear of and in line with the barrel, and a breech block resting, when in closed position, with one end against the abutment in the receiver, and the other closing the breech of the barrel, said breech block being divided transversely into fore and rear sections hinged together, and means for withdrawing both sections of the breech block rearwardly from the barrel, substantially as described. 2nd. In a breech loading fire arm a barrel, and receiver, an abutment in the receiver to the rear of and in line with the barrel, and a breech block resting, when in closed position, with one end against the abutment in the receiver, and the other closing the breech of the barrel, said breech block

being divided transversely into fore and rear sections hinged together, a firing pin extending through, and divided into sections corresponding to the breech block, and a hammer operating in the rear of said abutment which has an opening for engagement of the hammer and firing pin, substantially as described. 3rd. In a breech loading fire arm a barrel and receiver, an abutment in the receiver in line with and to the rear of the barrel, a breech block normally resting with one end closing the breech of the barrel, and the other against said abutment, said breech block being transversely divided into front and rear sections hinged to each other, a sliding handle on the under side of the receiver, and a link connecting said handle to the rear of the breech block, substantially as described. 4th. In a breech-loading fire arm, a barrel and receiver having a straight guideway in its inner faces extending from the breech of the barrel to a point near an abutment in the receiver, in line with the barrel, and a guideway extending vertically downward for a short distance, near the rear end of the receiver, and thence obliquely downward and rearward, a breech block normally resting with one end closing the breech of the barrel and the other against the abutment, said breech block being divided into fore and rear sections hinged to each other the said fore section working in the said straight guideway in the receiver, and the rear section having its rear end guided by the other guideway, and means for operating the breech block in said guideways, substantially as shown and described. 5th. The combination of the main frame piece constituting a receiver connected with the breech of the barrel and provided with an abutment at its rear end, of the under frame piece and two part jointed breech block and means for operating the same connected with the said under frame piece, as described, whereby said under frame piece and the breech block and its operating mechanism may be removed without separation from the main breech frame piece, substantially as described. 6th. The combination of the main breech frame piece, constituting a receiver communicating with the barrel and magazine, and provided with an abutment at the rear of said receiver in line with the barrel with the under frame piece and transferer pivotally connected therewith, and the breech block and its actuating mechanism connected with the said under frame piece for removal without separation of its parts from said main breech frame piece, substantially as and for the purpose described. 7th. In a breech loading fire arm, the barrel and receiver connected therewith having an abutment at its rear end in line with the barrel, and a two part breech block having its front and rear sections hinged together and adapted to be interposed in line with one another between the breech of the barrel and said abutment, combined with operating means for withdrawing the said breech block from the breech of the gun and for moving it into position between the breech and the abutment, a lock for holding the said operating means with the breech block in closed position, a firing hammer, and releasing device for said lock operated by said hammer, substantially as described. 8th. The combination of the main frame piece connected with the breech of the barrel and provided with an abutment at the rear thereof, with the two part jointed breech block and sliding hand piece connected therewith, the trigger pivoted in said sliding hand piece, and lock co-operating with the said trigger and hand piece as described, to lock the trigger except when the breech is closed, and to lock the hand piece and release the trigger when the breech is closed, substantially as described. 9th. The combination of the main breech frame piece connected with the breech of the barrel and provided with an abutment at the rear thereof, the breech block and actuating hand piece connected therewith, the trigger connected with the said hand piece and lock co-operating with said hand piece as described, to lock the breech block in closed position and the releasing device for said lock operated by the hammer, substantially as described. 10th. The combination of the hammer with the sear having a forked trigger engaging end, the breech block and mechanism for operating the same, the trigger and lock connected with said breech block operating mechanism, said trigger having a forked sear engaging end, and the releasing device for said lock working in the forked engaging end of the sear, and operated by the hammer, substantially as described. 11th. The combination of the breech block with the extractor consisting of a forked spring having one branch of the fork in a longitudinal bore in the breech block and the other branch of of the fork extending along the side of the breech block and projecting beyond the forward end thereof and provided with a shoulder and incline at its forward end to engage with the rim of the cartridge shell, substantially as described. 12th. The combination of the breech block d, with the extractor for engaging the rim of the shell and the spring pressed ejector bolt in the forward end of said breech block provided with a central passage for the firing pin, substantially as described. 13th. The combination of the magazine and barrel with the pivoted transferer f and the yielding retaining projection f^6 under its forward end constituting a stop to prevent escape of cartridges from the magazine when the transferer is in position to guide the cartridge above it into the gun barrel said retaining projection yielding to permit cartridges to be introduced into the magazine, substantially as described. 14th. The breech frame piece constituting a receiver, and the barrel and magazine communicating therewith, said frame piece being open at its under side, combined with the pivoted carrier f having laterally projecting ribs f^8 along the lower edges of its side the said receiver having its lower portion widened to receive said ribs and being provided with shoulders c^8 to engage said ribs and limit the pivotal upward movement of the carrier, substantially as described. 15th. The breech frame piece constituting a receiver closed at the top and provided with an abutment at its rear end and having one of its side walls provided with an opening, combined with a sliding cover for said opening, and a breech block longitudinally movable in said receiver and engaged with said sliding cover, the top side and rear walls of said receiver being otherwise closed and continuous, substantially as described.

No. 43,988. Paper Sack. (*Sac en papier.*)



Richard Coughlan, Hastings, Ontario, Canada, 21st August, 1893; 6 years.

Claim.—1st. A paper rack composed of a stationary board and a fall board, the stationary board adapted to be secured to a wall or other object, and two pairs of tapes or straps connecting the said boards, one pair secured to the top edge of the stationary board extending down over the surface thereof and having the other end secured to the top edge of the fall board, the other pair secured at one end to the bottom edge of the stationary board, extending down over the face of the fall board, and having the other end secured to the lower end thereof, substantially as set forth. 2nd. In a paper rack, the combination of a stationary board A, adapted to be secured in an upright position to a wall or other object, a fall board A^1, connected to the stationary board, a pair of tapes or straps B, having one end secured to the top edge of the stationary board and the other to the top end of the fall board, a pair of tapes or straps B^1, having one end secured to the bottom edge of the stationary board and the other to the lower edge of the fall board, a buckle C securing one end of each tape or strap to the board, and a bumper D secured to the lower end of the back of the fall board, substantially as set forth.

No. 43,989. Hair Structure. (*Perruque, etc.*)

James Yocum Borden, Philadelphia, Pennsylvania, U.S.A., 21st August, 1893; 6 years.

Claim.—1st. A bang, wig or like hair structure, consisting of a series of loops, each having hair attached to and projecting therefrom, the series comprising a main or base loop, and one or more side or extension loops mounted upon and projecting from said base loop, substantially as specified. 2nd. A bang, wig or like hair structure, consisting of a series of loops, each having hair attached to and projecting therefrom, the series comprising a main or base loop, and one or more side or extension loops mounted upon and projecting from said base loop, the hair of some of the loops passing through and concealing one or more of the loops of the series, substantially as specified. 3rd. The combination in a bang structure, of a loop, hair secured thereto, a band to which the loop is attached, and an independent strand of hair secured to said band and forming a rearwardly extending curl, substantially as set forth.

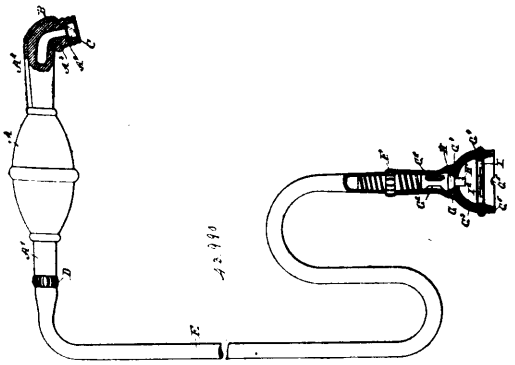
No. 43,990. Window Garden Spray.

(*Lance de jet-d'eau pour jardins.*)

Benjamin F. Sill, Long Island City, New York, U.S.A., 21st August, 1893; 6 years.

Claim.—1st. In window garden spray, the elastic pressure bulb constructed as shown, with a bent-up delivery nozzle, both in one piece of elastic material, the interior of the extremity of the delivery nozzle being enlarged to form a valve chamber and therein provided with an outwardly opening valve, said nozzle being also constructed with an exterior elastic screw thread upon which a perforated cap screws, which forms delivery rose and a protection for the valve, all combined as herein shown and described. 2nd. In a window garden spray, the filtering cup and valve chamber constructed in one piece

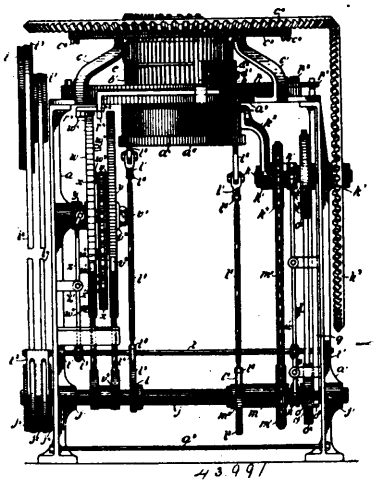
of elastic material, the valve chamber having inward projecting valve lugs made of and integral with the elastic material, in com-



bination with the valve constructed of elastic material, and a filter ring with its cloth set within the mouth of the filtering cup and held in place by the elastic pressure of the material composing the cup, and protected therein by the projecting rim or extremity of the filtering cup, as and for the purposes herein shown and described.

No. 43,991. Knitting Machine.

(*Machine à tricoter.*)



John Frank, Philadelphia, U.S.A., 21st August, 1893; 6 years.

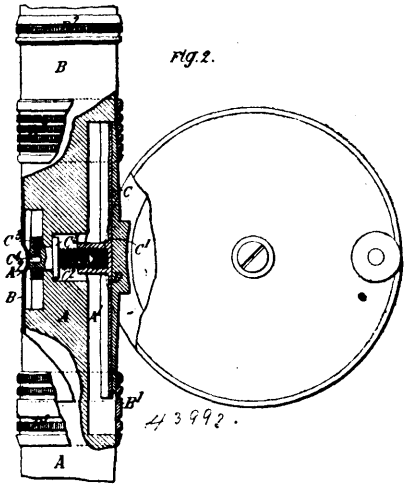
Claim.—1st. In a knitting machine, needles, and a sectional needle cylinder for operating said needles, substantialy as and for the purposes set forth. 2nd. A knitting machine provided with needles, a sectional needle cylinder for operating said needles, and means for reciprocating the sections of said cylinder, substantially as and for the purposes set forth. 3rd. A knitting machine provided with needles, a sectional needle cylinder for operating said needles, positively driven eccentrics and link work interposed between said eccentrics and the sections of the cylinder, substantially as and for the purposes set forth. 4th. A knitting machine provided with needles, a sectional needle cylinder for operating said needles, a positively driven shaft, and means interposed between the shaft and sections of the cylinder for reciprocating the latter, substantially as and for the purposes set forth. 5th. In a knitting machine, needles, two concentric rims forming ways, and means for actuating the sections of the needle cylinder, substantially as and for the purposes set forth. 6th. In a knitting machine, needles, two concentric rims forming ways, feathers projecting from one of said rims, a sectional needle cylinder working in said ways and between said feathers, and means for actuating the sections of the needle cylinder, substantially as and for the purposes set forth. 7th. In a knitting machine, an exterior rim, an interior rim provided with guide slots, a sectional needle cylinder intermediate of said rims, means for reciprocating the sections of the needle cylinder, and needles carried by said sections and working in the guide slots of the interior rim, substantially as and for the purposes set forth. 8th. In a knitting machine, a sectional needle cylinder, needles, a sectional ring for engaging said needles, and means for reciprocating the complemental sections of the cylinder and ring, substantially as and for the purposes set forth. 9th. In a knitting machine, a sectional needle cylinder and its complemental actuating machinism, needles carried by the respective sections of the cylinder, sinkers, and a cam provided with an adjustable section for increasing or diminishing the throw of the sinkers, substantially as and for the purposes set forth. 10th. In a knitting machine, a sectional needle cylinder, and its complemental actuating mechanism, needles carried by the respective sections of the cylinder, sinkers, and means for actuating the sinkers, substantially as and for the purposes set forth. 11th. In a knitting machine, a sectional needle cylinder and its complemental actuating mechanism, spring-beard needles carried by the respective sections of said cylinder, a sinker bed provided with a lip adapted to serve as a presser ring for said needles, sinkers, and means for actuating said sinkers, substantially as and for the purposes set forth. 12th. In a knitting machine, a sectional needle cylinder and its complemental actuating mechanism, spring beard needles carried by the respective sections of said cylinder, and a bed provided with a lip adapted to serve as a presser ring for said needles, substantially as and for the purposes set forth. 13th. In a knitting machine, a sectional needle cylinder, needles provided with spring catches for engaging the needle cylinder, and means for actuating the sections of the needle cylinder, substantially as and for the purposes set forth. 14th. In a knitting machine, a sectional needle cylinder, means for alternately reciprocating the sections of said cylinder, a set of needles carried by each of the sections of the needle cylinder, and a thread carrier adapted to co-operate with each set of needles, substantially as and for the purposes set forth. 15th. A knitting machine comprising a sectional needle cylinder, means for lifting and depressing the sections of said cylinder, needles, a thread carrier, sinkers, and means for actuating said sinkers and thread carrier, substantially as and for the purposes set forth. 16th. A knitting machine comprising concentric rims, a sectional needle cylinder intermediate of said rims, means for lifting and depressing the sections of said cylinder, spring beard needles, a thread carrier, a presser, sinkers, and means for actuating said sinkers and thread carrier, substantially as and for the purposes set forth. 17th. In a knitting machine, a sectional needle cylinder, means for actuating the sections of said cylinder, a sectional ring carried by the needle cylinder, and needles respectively provided with bits and curved extremities for engaging said ring, substantially as and for the purposes set forth. 18th. In a knitting machine, a sectional needle cylinder, needles detachably applied to the sections of said cylinder, and means for lifting and depressing said sections, substantially as and for the purposes set forth. 19th. In a knitting machine, needles provided with bits or hubs, a sectional needle cylinder provided with apertures for the reception of needle bits or hubs, a ring for clamping the needles to place, and means for lifting and depressing said sections, substantially as and for the purposes set forth. 20th. In a knitting machine, a sectional needle cylinder provided with apertures for the reception of needle bits or hubs, a ring provided with a corrugated leather covered face for clamping said needles, and means for lifting and depressing said sections, substantially as and for the purposes set forth. 21st. In a knitting machine, a sectional needle cylinder, needles carried by the respective sections of said cylinder, mechanism for actuating the sections of the cylinder, and means for throwing the actuating mechanism of one of said sections out of action, substantially as and for the purposes set forth. 22nd. In a knitting machine, a sectional needle cylinder, needles carried by the respective sections of said cylinder, a thread carrier, devices for rotating and reciprocating said thread carrier, mechanism for actuating the sections of the cylinder, and means for throwing the actuating mechanism of one of the sections out of action and for reversing the direction of motion of the thread carrier, substantially as and for the purposes set forth. 23rd. In a knitting machine, a sectional needle cylinder, needles carried by the respective sections of said cylinder, mechanism for actuating the sections of the cylinder, means for throwing one of said sections out of action, a revoluble sinker head provided with sinkers and a thread carrier, and means for rotating and oscillating said sinker head, substantially as and for the purposes set forth. 24th. In a knitting machine, a sectional needle cylinder, needles, a positively driven shaft, link motions interposed between said shaft and the respective sections of the cylinder, and means for throwing the link motion appertaining to one of said sections out of action, substantially as and for the purposes set forth. 25th. In a knitting machine, a sectional needle, cylinder, needles, a positively driven shaft, an eccentric keyed to said shaft and adapted to operate one section of said cylinder, an eccentric loose on said shaft and adapted to operate the other section of said cylinder, and a clutch for connecting and disconnecting said loose eccentric and shaft, substantially as and for the purposes set forth. 26th. In a knitting machine, a sectional needle cylinder, needles, a main shaft, link motions interposed between the shaft and the respective sections of the cylinder, means for throwing one of the link motions out of action, high and low speed power appliances and a shipper for controlling the power appliances and actuating the means for throwing the last mentioned link motion out of action, substantially as and for the purposes set forth. 27th. In a knitting machine, a sectional needle cylinder, needles, a main shaft, link motions interposed between said shaft and the respective sections of the cylinder, means for throwing the link motion appertaining to one of said sections out of action, and power appliances for driving said shaft at high and low rate of speed, substantially as and for the purposes set forth. 28th. In a knitting machine, a sectional needle cylinder, needles, a main shaft, link work interposed between the sections of the cylinder and main shaft, one tight and two loose pulleys on said shaft, high and low speed belts and their complemental driving pulleys, and a shipper for shift-

ing said belts and throwing the link work appertaining to one of the sections of the needle cylinder out of action, substantially as and for the purposes set forth. 29th. In a knitting machine, a sectional needle cylinder, needles, a main shaft, link work interposed between the sections of the cylinder and main shaft, one tight and two loose pulleys on said shaft, high and low speed belts and their complemental driving pulleys, a shipper for shifting said belts and throwing the link work appertaining to one section of the needle cylinder out of action, and means automatically actuating said shipper, substantially as and for the purposes set forth. 30th. In a knitting machine, two concentric rims and a slotted ring forming ways, a sectional needle cylinder working in said ways, lugs connected with the respective sections of said cylinder and working in the slots of said ring, a positively driven shaft and link work operated by the shaft and connected with the lugs, substantially as and for the purposes set forth. 31st. In a knitting machine, a sectional needle cylinder, needles, a positively driven shaft, eccentrics on said shaft, links interposed between the eccentrics and the sections of the needle cylinder, and a clutch for throwing one of said eccentrics out of action, substantially as and for the purpose set forth. 32nd. In a knitting machine, a sectional needle cylinder, needles, a positively driven shaft, actuating mechanism interposed between said shaft and the respective sections of the needle cylinder, a clutch for throwing the actuating mechanism of one of the sections of the cylinder out of gear, a shipper for shifting said clutch, a cam wheel for actuating said shipper, and mechanism interposed between said shaft and cam wheel, for intermittently rotating the latter, substantially as and for the purposes set forth. 33rd. In a knitting machine, a sectional needle cylinder, needles, a positively driven shaft, actuating mechanism interposed between said shaft and the respective sections of the needle cylinder, a shipper for throwing the actuating mechanism of one of the sections of the cylinder out of gear, a cam wheel for actuating said shipper, and mechanism interposed between said shaft and cam wheel for intermittently rotating the latter, substantially as and for the purposes set forth. 34th. In a knitting machine, a sectional needle cylinder, needles, a positively driven shaft, actuating mechanism interposed between said shaft and the respective sections of the needle cylinder, a clutch for throwing the actuating mechanism of one of the sections of the cylinder out of gear, a shipper for shifting said clutch, a ratchet wheel provided with a cam for operating said shipper, a pawl driven by said shaft and adapted to mesh with the teeth of said ratchet wheel and to work in peripheral recesses therein and a pattern chain and its complemental feed mechanism for intermittently shifting the ratchet wheel to bring said pawl into engagement with the teeth thereof, substantially as and for the purposes set forth. 35th. In a knitting machine, a sectional needle cylinder, needles, a positively driven main shaft, actuating mechanism interposed between the sections of the cylinder and main shaft, a shipper for throwing the actuating mechanism appertaining to one of the sections out of gear, a ratchet wheel provided which a cam for operating said shipper, a pawl actuated by the main shaft, and adapted to mesh with the teeth of said ratchet wheel and to work in peripheral recesses, and a pattern chain and its complemental feed mechanism for intermittently rotating said ratchet wheel to cause the engagement of said pawl with the teeth thereof, substantially as and for the purposes set forth. 36th. In a knitting machine, a sectional needle cylinder and its complemental operating mechanism, needles tending to engage the needle cylinder, and means for preventing the engagement of certain of said needles, substantially as and for the purposes set forth. 37th. In a knitting machine, a sectional needle cylinder, mechanism for operating the sections of said cylinder, devices for throwing one of said sections out of operation, needles tending to engage the needle cylinder, and means for preventing the engagement of certain of said needles, substantially as and for the purposes set forth. 38th. In a knitting machine, a sectional needle cylinder, mechanism for continuously operating one of the sections of said cylinder and for intermittently operating the other section thereof, fashioning needles detachably connected with the continuously operated section, needles applied to the other section, and means for engaging and releasing the fashioning needles to throw the same into and out of action, substantially as and for the purposes set forth. 39th. In a knitting machine, a sectional needle cylinder, means for continuously operating a certain section of said cylinder, fashioning needles tending to engage portions of the continuously operated section, needles intermediate of the fashioning needles, and means for restraining and releasing the fashioning needles, substantially as and for the purposes set forth. 40th. In a knitting machine, a sectional needle cylinder, mechanism for operating the sections of said cylinder, needles tending to engage said sections, and a stripper for engaging the bits or hubs of certain of said needles, substantially as and for the purposes set forth. 41st. In a knitting machine, a sectional needle cylinder, mechanism for operating the sections of said cylinder, two sets of needles normally carried by said sections and provided respectively with long and short bits or hubs, and a stripper for engaging the long bits or hubs, substantially as and for the purposes set forth. 42nd. In a knitting machine, a sectional needle cylinder, means for operating the sections of said cylinder, fashioning needles having spring catches for engaging the needle cylinder, and a stripper for engaging and releasing the fashioning needles, substantially as and for the purposes set forth. 43rd. In a knitting machine, a sectional needle cylinder, means for continuously operating one of the sections of said needle cylinder, a thread carrier and mechanism for reciprocating the thread carrier in respect to the needles of the continuously operated section, substantially as and for the purposes set forth. 44th. In a knitting machine, needles, a sectional needle cylinder, means for continuously operating one of the sections of said cylinder, a thread carrier, a counter shaft, mitre gearing interposed between the counter shaft and thread carrier, and means for reciprocating said counter shaft, substantially as and for the purposes set forth. 45th. In a knitting machine, needles, a sectional needle cylinder, means for continuously operating one of the sections of said cylinder, a thread carrier, a counter shaft, mitre gearing interposed between the counter shaft and thread carrier, a positively driven shaft, sprocket gearing interposed between said shafts, an arm provided with a rack and oscillated by the positively driven shaft, a pinion on the counter shaft engaging said arm, and means for throwing the sprocket gearing out of and into action, substantially as and for the purposes set forth. 46th. In a knitting machine, needles, a sectional needle cylinder, means for continuously operating one of the sections of said cylinder, a sinker head and its accessories, a counter shaft, gearing interposed between the counter shaft and sinker head, a positively driven shaft, an arm oscillated by the positively driven shaft and provided with a rack and cheeks, and a pinion on the counter shaft provided with flanges and engaging said arm, substantially as and for the purposes set forth. 47th. In a knitting machine, needles, a sectional needle cylinder, means for continuously operating one of the sections of the cylinder, a sinker head and its complemental sinkers, a thread carrier applied to the sinker head, and mechanism for reciprocating the sinker head in respect to the needles of the continuously operated section, substantially as and for the purposes set forth. 48th. In a knitting machine, a sectional needle cylinder, means for continuously operating one of the sections of said cylinder, needles, a thread carrier, a counter shaft and its complemental gearing for actuating the thread carrier, a positively driven main shaft, two sets of connections interposed between the positively driven main shaft and counter shaft respectively adapted to rotate and oscillate the counter shaft, clutches for controlling said sets of connections, a shipper and link work for operating said clutches, a ratchet wheel provided with a cam for actuating the shipper, and means connected with the main shaft for intermittently rotating said ratchet wheel, substantially as and for the purposes set forth. 49th. In a knitting machine, needles, means for operating said needles, a thread carrier, a counter shaft and its complemental gearing for actuating the thread carrier, a positively driven main shaft, two sets of connections interpose between the positively driven and counter shafts, and respectively adapted to rotate and to oscillate the counter shaft, clutches for controlling said sets of connections, a shipper and link work for operating said clutches, a ratchet wheel provided with a cam for actuating the link work, and means connected with the main shaft for intermittently rotating said ratchet wheel, substantially as and for the purposes set forth. 50th. In a knitting machine, needles, means for operating said needles, a thread carrier, a positively driven shaft, two sets of connections actuated by said shaft and adapted respectively to rotate and oscillate said thread carrier, clutches for controlling said sets of connections, link work for operating the clutches, a ratchet wheel provided with a cam for actuating said link work, a pawl actuated by said shaft and adapted to engage the teeth of said ratchet wheel and to work in recesses between said teeth, a pattern chain for intermittently rotating said ratchet wheel, and continuous feed mechanism for said pattern chain, substantially as and for the purposes set forth. 51st. In a knitting machine, a sectional needle cylinder, means for continuously operating one of the sections of said cylinder, needles, a thread carrier, a counter shaft and its complemental gears for actuating the thread carrier, a positively driven main shaft, two sets of connections interposed between the positively driven and counter shafts, and respectively adapted to rotate and oscillate the counter shaft, clutches for controlling said sets of connections, link work for operating said clutches, a ratchet wheel provided with a cam for actuating said link work, a pawl actuated by said main shaft and adapted to engage the teeth of said ratchet wheel and to work in peripheral recesses, a pattern chain for intermittently rotating said ratchet wheel, and continuous feed mechanism for said pattern chain, substantially as and for the purposes set forth. 52nd. In a knitting machine, a sectional needle cylinder, means for continuously operating one of the sections of said cylinder, needles, a thread carrier, a positively driven shaft, two sets of connections actuated by said shaft and adapted respectively to rotate and oscillate said thread carrier, clutches for controlling said sets of connections, link work for operating said clutches, a ratchet wheel for actuating said link work, a pawl actuated by said shaft and adapted to engage the teeth of said ratchet wheel and to work in recesses between said teeth, a pattern chain for intermittently rotating said ratchet wheel, and continuous feed mechanism for said pattern chain, substantially as and for the purposes set forth. 53rd. In a knitting machine needles, a sectional needle cylinder, a sinker head provided with a thread carrier, a counter shaft and complemental gearing for actuating the sinker head, a driving shaft, eccentrics and links interposed between the driving shaft and the sections of the needle cylinder, sprocket and rack gearing interposed between the driving and counter shafts, clutches for throwing the sprocket and rack gearing

and one of the eccentrics out of and into action, link work for shifting said clutches, a ratchet wheel for operating said link work, and mechanism operated by the driving shaft and adapted to intermittently rotate the ratchet wheel, substantially as and for the purposes set forth. 54th. In a knitting machine, needles, a sectional needle cylinder, a sinker head provided with a thread carrier, a counter shaft and complemental gearing for actuating the sinker head, a driving shaft, eccentrics and links interposed between the driving shaft and the sections of the needle cylinder, sprocket and rack gearing interposed between the driving and the counter shafts, clutches for throwing the sprocket and rack gearing and one of the eccentrics out of and into action, link work for shifting said clutches, a ratchet wheel for operating said link work, a pawl actuated by the main shaft and adapted to engage the teeth of the ratchet wheel, and to work in peripheral recesses, a pattern chain for intermittently rotating the ratchet wheel, and continuous feed mechanism for the pattern chain, substantially as and for the purposes set forth. 55th. In a knitting machine, a sectional needle cylinder, means for continuously elevating and depressing one of the sections of said cylinder, fashioning needles detachably connected with the continuously operated section, segmental strippers adapted to engage said fashioning needles, and pawl and ratchet connections actuated by the main shaft and adapted to shift said strippers, substantially as and for the purposes set forth. 56th. In a knitting machine, a sectional needle cylinder, means for continuously elevating and depressing one of the sections of said cylinder, fashioning needles detachably connected with the continuously operated section, strippers adapted to engage said fashioning needles, and means actuated from the main shaft and adapted to shift said strippers, substantially as and for the purposes set forth. 57th. In a knitting machine, a sectional needle cylinder, means for continuously elevating and depressing one of the sections of said cylinder, fashioning needles detachably connected with the continuously operated section, strippers, carriages, resilient connections between the carriages and strippers, and means for shifting the carriages, substantially as and for the purposes set forth. 58th. In a knitting machine, a sectional needle cylinder, means for continuously elevating and depressing one of the sections of said cylinder, fashioning needles detachably connected with the continuously operated section, carriages, strippers provided with slots, springs in said slots and connected with the strippers and carriages, and means for shifting the carriages, substantially as and for the purpose set forth. 59th. A knitting machine, provided with a sectional needle cylinder, means for reciprocating the sections of said cylinder, a thread carrier, a sinker head and its accessories, a rim disposed within the needle cylinder and provided at the top with notches for guiding the needles and with web holding fingers, intermediate of the notches, substantially as and for the purposes set forth. 60th. In a knitting machine, a bed plate, a sectional needle cylinder, means for continuously elevating and depressing one of the sections of said cylinder, fashioning needles detachably connected with the continuously operated section, carriages afforded a range of travel in ways on the bed plate, screws working in slots in the bed plate and provided with spring washers for preventing retrograde movement of the carriages, strippers connected with the carriages and means for actuating the carriages, substantially as and for the purposes set forth. 61st. In a knitting machine, a bed plate, a sectional needle cylinder, means for continuously elevating and depressing one of the sections of said cylinder, fashioning needles detachably connected with the continuously operated section, carriages afforded a range of travel on the bed plate, means for preventing retrograde movement of the carriages, strippers, resilient connections interposed between the strippers and carriages, and means far actuating the carriages, substantially as and for the purposes set forth. 62nd. In a knitting machine, a sectional needle cylinder, means for continuously elevating and depressing one of the sections of said cylinder, fashioning needles detachably connected with the continuously operated section, strippers, racks for shifting said strippers, a frame provided with pawls having teeth for driving the racks backwards and forwards, means for vibrating said frame, and devices for shifting said pawls to cause the respective teeth thereof to come into action, substantially as and for the purposes set forth. 63rd. In a knitting machine, a sectional needle, means for continuously elevating and depressing one of the sections of said cylinder, fashioning needles detachably connected with the continuously operated section, carriages, racks for shifting said carriages, strippers, yielding connections between the strippers and carriages, pawls for driving the racks backward and forward, and devices for reversing the positions of the pawls, substantially as and for the purposes set forth. 64th. In a knitting machine, a sectional needle cylinder, means for continuously elevating and depressing one of the sections of said cylinder, fashioning needles detachably connected with the continuously operated section, strippers, racks, pawls adapted to engage said racks and drive said strippers backwards and forwards, a frame for controlling said pawls, and means for intermittently actuating said frame, substantially as and for the purposes set forth. 65th. In a knitting machine, a sectional needle cylinder, means for continuously elevating and depressing one of the sections of said cylinder, fashioning needles detachably connected with the continuously operated section, strippers, racks, pawls adapted to engage said racks and drive said strippers backwards and forwards, bars for controlling said pawls, a ratchet wheel provided with projections for reversing the positions of said pawls, and means for intermittently rotating said ratchet wheel, substantially as and for the purposes set forth. 66th. In a knitting machine, a sectional needle cylinder, means for actuating the sections of said cylinder, needles detachably connected with said sections, strippers having racks, pawls adapted to engage said racks and drive said strippers backwards and forwards, a frame for controlling said pawls, a ratchet wheel provided with projections for actuating the frame, a positively driven shaft, a pawl actuated by said shaft and adapted to mesh with the teeth of the ratchet wheel and to work in peripheral recesses therein, a pattern chain for intermittently rotating said ratchet wheel and continuous feed mechanism for said pattern chain, substantially as and for the purposes set forth. 67th. In a knitting machine, a sectional needle cylinder, means for elevating and depressing the sections of said cylinder, fashioning needles, strippers for engaging the fashioning needles, a ring, pawl and ratchet connections interposed between the ring and strippers, a positively driven shaft provided with a tappet arm and a tappet rod in range of said arm and connected with said ring, substantially as and for the purposes set forth. 68th. In a knitting machine, a sectional needle cylinder, means for elevating and depressing the sections of said cylinder, fashioning needles, strippers for engaging the fashioning needles, a ring, pawl and ratchet connections interposed between the ring and strippers, a positively driven shaft, connections interposed between the shaft and ring for actuating the latter, and mechanism for intermittently disconnecting the shaft and ring, substantially as and for the purposes set forth. 69th. In a knitting machine, a positively driven shaft, two sets of power appliances for driving said shaft at different rates of speed, a counter shaft, connections between the positively driven shaft and counter shaft for rotating and for oscillating the latter, a sectional needle cylinder provided with detachable needles, strippers, mechanism interposed between the positively driven shaft and sections of the cylinder, a sinker head operated by the counter shaft, pawl and ratchet connections operated by the positively driven shaft and adapted to actuate the strippers, and an intermittently reciprocated ratchet wheel and its complemental cams and connections for controlling said power appliances, sinker head, strippers and needle cylinder, substantially as and for the purposes set forth. 70th. In a knitting machine, a shaft, two sets of power appliances respectively adapted to drive said shaft at high and low speeds, a sectional needle cylinder provided with detachable fashioning needles, a sinker head and its accessories, strippers for engaging said fashioning needles, a set of connections for reciprocating all the sections of the needle cylinder, and revolving the sinker head when the high speed power appliance is in gear, a set of connections for actuating one of the sections of the needle cylinder and the strippers, and for oscillating the sinker head when the low speed power appliance is in gear, a shipper for controlling the power appliances and sets of connections, and means for intermittently actuating the shipper, substantially as and for the purposes set forth. 71st. In a knitting machine, a sectional needle cylinder provided with detachable fashioning needles, a sinker head and its accessories, strippers for engaging said fashioning needles, a high speed power appliance and its complemental set of connections for actuating all of the sections of the needle cylinder and revolving the sinker head, a low speed power appliance and its complemental connections for actuating one of the sections of the needle cylinder and strippers and for oscillating the sinker head, a shipper for controlling the power appliances, a frame for reversing the direction of travel of the strippers, and means for intermittently actuating the shipper and frame, substantially as and for the purposes set forth. 72nd. A knitting machine provided with needles, a sectional needle cylinder for operating said needles, a stripper for engaging certain of the needles and automatic mechanism for throwing one section of the cylinder out of action, and for controlling the position of the strippers to effect the widening and narrowing of the fabric or web, substantially as and for the purposes set forth. 73rd. A knitting machine provided with needles, a sectional cylinder for operating said needles, a sinker head, strippers for engaging certain of the needles, and automatic mechanism for controlling said cylinder, throwing one of the sections of said cylinder into and out of action, reversing the direction of movement of the sinker head and controlling the position of the strippers to effect the widening and narrowing of the fabric or web, substantially as and for the purposes set forth. 74th. A knitting machine provided with needles, a sectional needle cylinder for operating said needles, a sinker head, stripper for engaging certain of the needles, high and low speed power appliances, and mechanism for automatically bringing the low speed appliance into action to actuate one section of the cylinder, and for reciprocating the sinker head and controlling the position of the strippers, substantially as and for the purposes set forth. 75th. In a knitting machine, needles, a sectional needle cylinder, a sinker head, a counter shaft and connections for operating the sinker head, a main shaft provided with a fast eccentric, and its complemental link for continuously operating one of the sections of the needle cylinder, strippers for engaging certain of said needles, a tappet bar for operating said strippers, a sleeve loose on the main shaft and provided with an eccentric and its complemental link for actuating the other of the sections of the needle cylinder, and with a sprocket wheel, a second sleeve loose on the main shaft and provided with a tappet arm and an eccentric, an arm provided with a rack and operated by the last mentioned eccentric, a sprocket chain, two sleeves on the counter shaft pro-

vided respectively with a sprocket wheel and with a pinion, clutches splined to the counter and main shafts, pivotal levers for simultaneously shifting said clutches, and means for actuating said levers, substantially as and for the purposes set forth. 76th. A knitting machine provided with needles, a sectional needle cylinder for operating said needles, a sinker head, strippers for engaging certain of the needle, a ratchet wheel provided with cams and their complemental connections for automatically throwing one section of the needle cylinder out of action, controlling the sinker head and shifting the strippers to effect the widening and narrowing of the fabric or web, a main shaft, a pattern chain adapted to intermittently rotate the ratchet wheel, a pattern chain feed wheel, eccentrics on said shaft and spring controlled, pawls actuated by said eccentrics, substantially as and for the purposes set forth.

No. 43,992. Fishing Rod. (*Perche de pêche.*)



Oliver Schofield Rudock, Clapham, England, 21st August, 1893; 6 years.

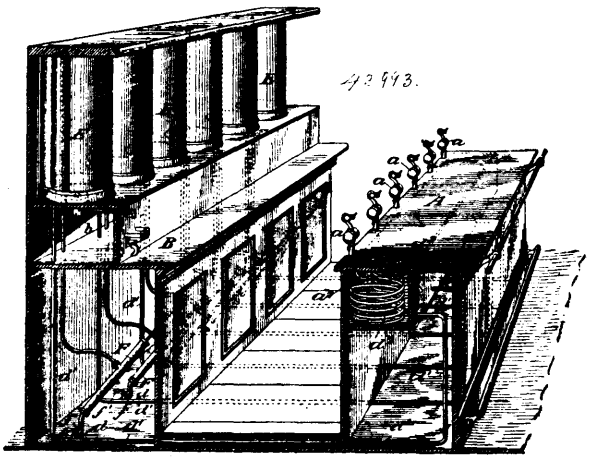
Claim,—1st. The combination with a fishing rod, having a recess near its butt, of a ring adapted to slide on the butt, so as to partly cover the recess therein, a movable plate adapted to be applied against the base piece of the winch, and means for moving said plate in the recess provided in the rod, substantially as and for the purpose specified. 2nd. The combination with a fishing rod, having a recess near its butt, of a tube secured on the butt and provided with an orifice opposite the recess in the same, a ring adapted to slide on said tube, so as to partly cover the orifice therein, a movable plate adapted to be applied against the base piece of the winch, and means for moving said plate in the recess, provided in the rod, substantially as and for the purpose specified. 3rd. The combination, with a fishing rod, having a recess near its butt, of a ring adapted to slide on the butt, so as to partly cover the recess therein, a movable plate furnished with a projecting part, in which a female screw is cut, and a screw which can be rotated in a bearing provided in the rod but cannot move axially therein, and which is adapted to engage with the female screw on the back of the movable plate, for the purpose specified. 4th. The combination, with a fishing rod, having a recess near its butt, of a tube secured on the butt and provided with an orifice opposite the recess in the same, a ring adapted to slide on said tube, so as to partly cover the orifice therein, a movable plate furnished with a projecting part at the back, in which a female screw is cut, and a screw which can be rotated in a bearing provided in the rod, but cannot move axially therein, and which is adapted to engage with the female screw on the back of the movable plate, for the purpose specified. 5th. The combination, with a fishing rod, having a recess near its butt, of a tube secured on the butt and provided with an orifice opposite the recess in the same, a ring adapted to slide on said tube, a fixed ring partly covering the end of the orifice in said tube, a movable plate adapted to be applied against the base piece of the winch, and means for moving said plate in the recess, provided in the rod, substantially as and for the purpose specified.

No. 43,993. Apparatus for Dispensing Liquids.

(*Appareil pour étaler les liquides.*)

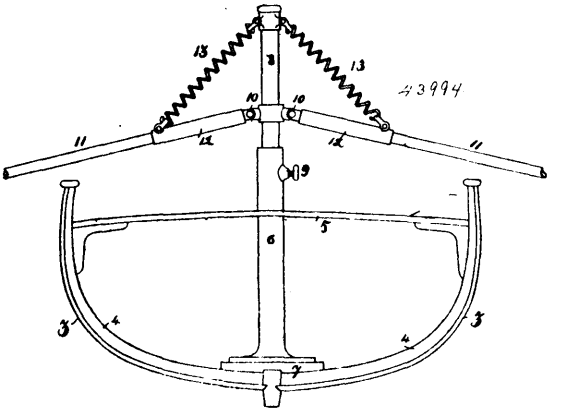
William Miles Fowler, Milford, Connecticut, U.S.A., 21st August, 1893; 6 years.

Claim.—The combination with a front and back bar and a liquid dispensing apparatus located on each, of a supply reservoir, a conduit leading from the supply reservoir to each of the dispensing apparatuses, and provided with a permanently closed wall wherever exposed to the bartender, a movable pressure device in open communication with the liquid, and means for operating the pressure device, substantially as set forth.



No. 43,994. Apparatus for Propelling Boats.

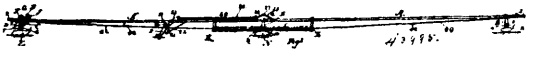
(*Appareil pour propulser les vaisseaux.*)



William Cutler, Constitution Hill, Birmingham, England, 21st August, 1893; 6 years.

Claim.—In apparatus for enabling persons to propel boats by hand while facing the direction in which the boat is travelling, the combination of a scull or oar pivoted to an adjustable pillar or other support, the weight of the scull or oar being balanced by a spring, arranged so as to permit motion of the scull or oar in any direction, substantially as and for the purposes described.

No. 43,995. Iceboat. (*Bateau à glace.*)



George Hornell Thacher, Albany, New York, U.S.A., 21st August, 1893; 6 years.

Claim.—1st. A skeleton iceboat adapted to be propelled by means of sweeps, the same consisting of a top frame formed by metallic bars which are connected side by side at their ends as shown in the drawings, a forward strut secured to said top frame and arranged to spread said bars apart, a bow runner pivoted to said strut so as to allow a slight tilting movement of said runner, a midship frame provided with midship runners arranged at opposite sides of the iceboat, said midship frame being secured to said top frame, and arranged to spread the bars of the latter apart to their greatest distance, an open ended midship section held in said midship frame and containing an oarsman's seat, outriggers extending laterally from said midship section and provided with rowlocks at their outer end, a spreading strut secured near the stern end of said top frame, a steering runner pivoted to said spreading strut, and independently moving foot boards arranged in said midship section and connected to the steering runner, substantially as shown and described. 2nd. In an iceboat propelled by sweeps, the combination of an oars-

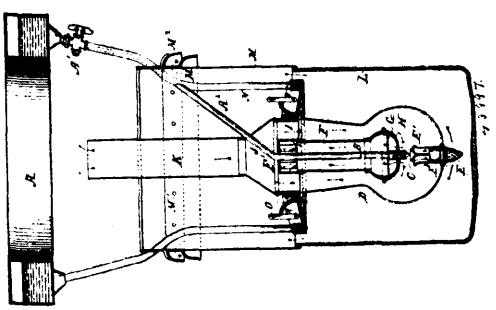
man's seat, movable foot boards arranged adjacently to said seat, a steering runner pivotally connected to a vertical shaft journalled to the framing of the iceboat, a pinion secured to said vertical shaft, a quadrant gear meshing into said pinion and provided with a cross-yoke, and connections from said yoke leading to said movable foot boards, whereby said steering runner can be adjusted to steer said iceboat in any required direction, substantially as herein specified. 3rd. In a means for propelling iceboats, the combination of a sweep R, provided with a collar 21, a spur piece T, provided with teeth 38, and fitted to slide loosely on the outer end of said sweep, a coupling S fitted to slide loosely on said sweep and provided with means, substantially as shown and described, for locking with said spur piece, and a spring 36 interposed between said collar and spur piece, as and for the purpose specified. 4th. The combination of an iceboat, a spring actuated spurred lever, an operating rod connected to said spurred lever, and means substantially as described, for holding the spurred end of said lever clear from the surface of the ice, as and for the purpose specified.

No. 43,996. Air Syringe. (*Seringue à air.*)

Frank B. Norris, Helena, Montana, U.S.A., 21st August, 1893; 6 years.

Claim.—1st. In an air syringe, the combination, of any air forcing device and a nozzle, of a metal tube coil, firmly secured to a handle of non-conducting material, and to the nozzle, substantially as shown and described. 2nd. In an air syringe, a metal tube coil in combination with a handle of asbestos and plaster, substantially as shown and described. 3rd. In an air syringe, the combination with any forcing device, of a metal tube coil, having screw threads cut upon each end, a handle of non-conducting material fitted to receive one end of the coil and a nozzle fitted to the other end, substantially as shown and described.

No. 43,997. Lamp. (*Lampe.*)



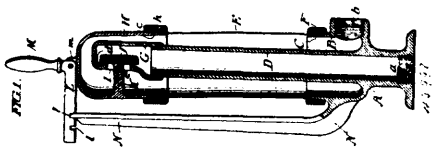
Henry Arthur Wheat, Melbourne, Australia, 21st August, 1893; 6 years.

Claim.—1st. In lamps for burning liquid hydrocarbons, a gasifier tube, as B, through which the flame producing liquid is allowed to trickle or flow, whilst being gradually heated, so as to become volatilized or vaporized on its arrival at the bottom, and the end of which terminates in a burner of any approved pattern, as and for the purposes described and explained. 2nd. In lamps for burning liquid hydrocarbons, the combination of a downward draught impinging on the top of the flame with an upward draught impigning on the underside of the flame in a combative manner with the downward draught, said flame being produced from the direct combustion or gasification of liquid hydrocarbon, substantially as described and illustrated. 3rd. In lamps for burning liquid hydrocarbons, a globe as D, the sides of which are impermeable to air or gases, its top being open to the main flue of the lamp, and in the bottom of which a ventilator is placed for the ingress of air to the flame, substantially as described and illustrated. 4th. In lamps for burning liquid hydrocarbons, an inner air tube or cylindrical chamber, as F, preferably terminating in an enlarged chamber, as H, containing perforated passages or wire gauze, and around the outside of which the flame and its products pass for the purposes of heating the air in such tube, substantially as described. 5th. In lamps for burning liquid hydrocarbons, the general construction mechanical arrangement and combination of the whole of the parts shown on the drawing herewith constituting a complete hydrocarbon lamp, substantially as and for the purposes described and illustrated in the accompanying drawing.

No. 43,998. Valve. (*Soupape.*)

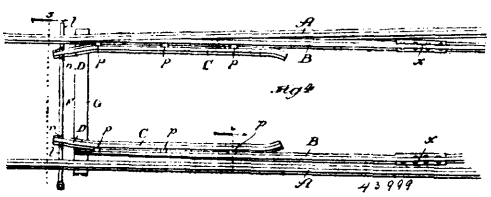
Wilham George Adams, and John Sims Forbes, both of Philadelphia, Pennsylvania, U.S.A., 21st August, 1893; 6 years.

Claim.—1st. The combination of a valve body, provided with inlet and outlet orifices and a valve seat, a continuous closed casing, capable of rocking movement, mounted upon said body and communicating only therewith, a valve operatively connected with said



casing, and so arranged with relation to said seat as to be shifted towards or from the same in conformity with the rocking movement of the casing, substantially as set forth. 2nd. The combination of a valve body, provided with inlet and outlet orifices and a valve seat, a continuous closed casing, capable of rocking movement, mounted upon said body at a point intermediate between said inlet and outlet orifices, said casing being adjacent to, but out of the direct path of the fluid, and a valve operatively connected with said casing and so arranged with relation to said seat as to be shifted towards or from the same in conformity with the rocking movement of the casing, substantially as set forth.

No. 43,999. Railway Switch.
(*Aiguille de chemin de fer.*)



Axel Albin Strom, Austin, Illinois, U.S.A., 21st August, 1893; 6 years.

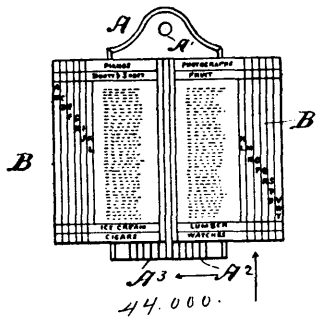
Claim.—1st. In combination, a split switch and a connecting medium for the switch rails adjustable lengthwise thereof to set the gage, substantially as described. 2nd. In combination, a split switch and a tie bar connecting the switch rails and adjustable lengthwise thereof to set the gage, substantially as described. 3rd. In combination, a split switch and a tie bar extending obliquely between and connecting the switch rails and adjustable at one end lengthwise of the adjacent rail to set the gage, substantially as described. 4th. In a split switch, the combination, with the point rails, of reinforcing bars secured to and extending along their inner sides and having their bearing bases laterally beyond those of the point rails, substantially as and for the purpose set forth. 5th. In a split switch, the combination, with the point rails, of gage adjusting horizontally inward projecting sections inclining inward from the point rails, and a tie bar connecting the point rails at and adjustable on the said sections lengthwise thereof, substantially as and for the purpose set forth. 6th. In a split switch, the combination, with the point rails, of gage adjusting horizontally inward projecting sections inclining toward each other from the point rails and provided with bolt holes, perforated plates fitting against the sides of the said sections and bolted thereto, and a tie bar connecting the point rails at the said sections and held by the said plates, substantially as and for the purpose set forth. 7th. In a split switch, the combination, with the point rails, of guard rail shaped reinforcing rails bolted to and extending along the inner sides of the point rails, and spacers interposed between the point rails and reinforcing rails, substantially as and for the purpose set forth. 8th. In a split switch, the combination, with the point rails, of reinforcing bars secured to the inner sides of the said rails and extending beyond the points thereof, and a tie bar connecting the point rails at the said extensions, substantially as described. 9th. In a split switch, the combination, with the point rails B, of guard rail shaft reinforcing rails C, bolted to and extending along the inner sides and beyond the points of the rails B, bent sections D at the ends of the reinforcing rails, having holes q, perforated plates E, bolted to the said sections through holes q, and a tie bar F, connecting the point rails at the sections D, and engaged by the adjustable plates, substantially as and for the purpose set forth.

No. 44,000. Telephone Index. (*Index de téléphone.*)

John J. Ryan, Montreal, Quebec, Canada, assignee of Stillman L. Shaffer, Worcester, Massachusetts, U. S. A., 22nd August, 1893; 6 years.

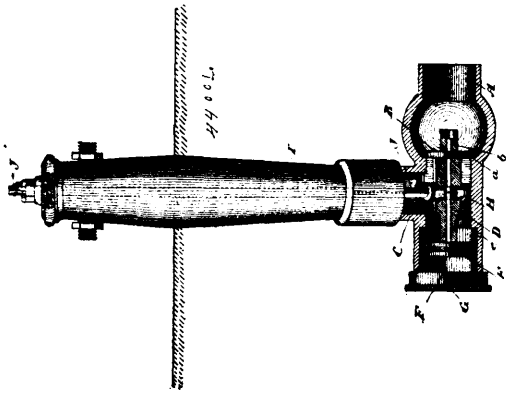
Claim.—1st. In a telephone index, the combination of the back, cut to form therein a series of parallel slits and a series of parallel prongs with a series of indexed leaves inserted and detachably held within the slits, substantially as described. 2nd. In a telephone index the combination of a rigid back A, provided with a series of parallel slits, a series of indexed leaves provided with stubs united to said leaves by a flexible joint, said stubs being inserted in said slits in means for clamping the same in position, substantially as

described. 3rd. In a telephone index, the combination of a back provided with a series of parallel slits, forming elastic prongs, leaves



inserted in said slits, and a clamping screw by which said prongs are drawn together, substantially as described. 4th. In a telephone index, the combination of a back provided with a series of parallel slits, forming elastic prongs, leaves inserted in said slits, and a clamping device by which said prongs are drawn together, substantially as described.

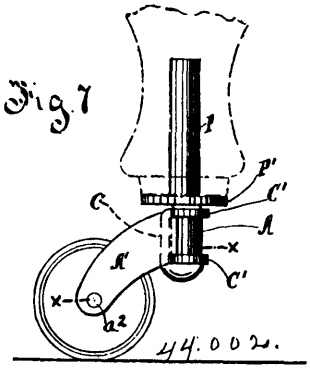
No. 44,001. Cut-Off Valve. (*Détente de soupape.*)



Samuel Cameron McNeill, Montreal, and Peter Clark, Richmond, both in Quebec, Canada, 22nd August, 1893; 6 years.

Claim.—A valve, connected to a hollow valve spindle and fitted into a valve chamber formed between the supply pipe and discharge port, a piston of larger diameter than the valve, to the spindle of which it is connected, is fitted into a closed chamber on the opposite side of the discharge port, in combination with a cock fitted into the hollow spindle between the piston and the valve, substantially as and for the purpose specified.

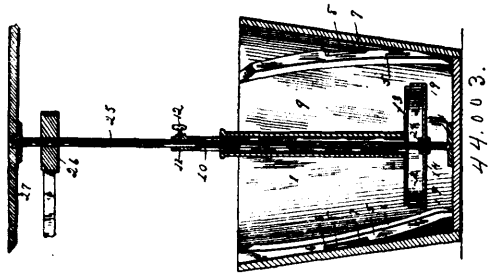
No. 44,002. Caster. (*Roulette de meuble.*)



Herbert Root Ives, assignee of Ernest Joseph Wasbrood, both of Montreal, Quebec, Canada, 22nd August, 1893; 6 years.

Claim.—1st. A furniture caster, the frame of which is composed of two interlocking pieces held in place by the pintle, as set forth. 2nd. A furniture caster, the frame of which is composed of two parts, each having end portions bent at right angles to the body portions and notched or recessed to interlock with each other, and be held in place by the pintle, as set forth. 3rd. A furniture caster, the frame of which is composed of a bent plate having body portion A, perforated end pieces A^1, A^1, and shoulders a, a, and a second bent plate having body portion C, perforated end pieces C^1, C^1, adapted to interlock with each other and be held in place by the pintle, as set forth.

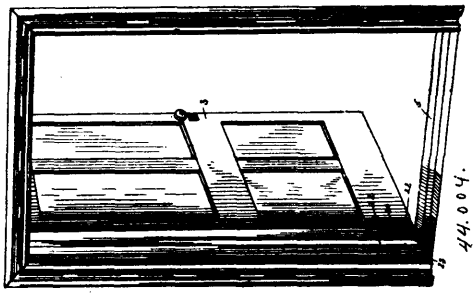
No. 44,003. Churn. (*Barratte.*)



Newton Monday and James M. O'Carr, both of Lathrop, Missouri, U.S.A., 22nd August, 1893; 6 years.

Claim.—1st. In a churn, the combination of a body of cylindrical form, and breakers removably secured to the inner side thereof in diagonal lines approximating a vertical plane, and having slots in the rear portions of the same intermediate of the length thereof, the lower ends of each of said breakers being tapered to form a close fitting at the bottom of the body and avoid too much projection, a series of eyes secured to the inner sides of the said body, and catch pins depending from the upper portions of said slots in the breakers, and adapted to removably engage the aforesaid eyes, said pins being so arranged as to closely hold the breakers against the inner side of the said body, substantially as described. 2nd. In a churn, the combination of a body and a centrifugal air feeding device mounted therein and consisting of a tube with an upper open end, and having an air chamber at the lower end thereof constructed of separable sections with peripheral openings therein, situated diametrically opposite to each other, and having a part thereof arranged in each section in such manner as to align and open in reverse directions, substantially as described. 3rd. In a churn, the combination of a centrifugal air feeding device having a tube open at its upper end and formed with an air chamber at its lower end having peripheral air openings, and interlocking pins and slots in the opposite parts thereof, and a shaft extending centrally through said air feeding device and secured thereto for the purpose of rotating the same, substantially as described.

No. 44,004. Weather Strip. (*Bourrelet de porte.*)



Elias Cannon Ellis and William S. Humphrey, both of Colorado Springs, Colorado, U.S.A., 22nd August, 1893; 6 years.

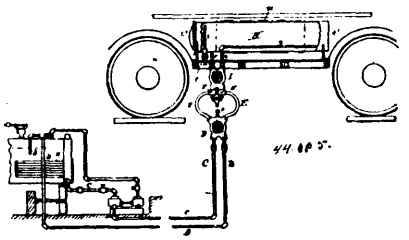
Claim.—The combination with a door provided at its bottom with a vertical groove, the end plates 9 and 12 secured to the side edges of the door at the ends of the grooves, the plate 9 having a socket, and the plate 12 being provided with an opening, a weather strip constructed of sheet metal bent longitudinally and having an elastic strip secured between its sides, vertical loops secured to the weather strip near the ends thereof, and being approximately inverted U-shape, and a resilient rod secured at its centre to the upper edge of the weather strip at the centre thereof and projecting from each end of the weather strip, and having one end arranged in the socket of the plate 9, and its other end extending through the opening of the other plate, substantially as described.

No. 44,005. Car Heater. (*Appareil de chauffage des chars.*)

John Henry Carson, New York City, assignee of Gardner Dexter Hiscox, Brooklyn, both of New York, U.S.A., 22nd August, 1893; 6 years.

Claim.—1st. In a street car heating system, the combination with a stationary hot water boiler of a continuous and complete circula-

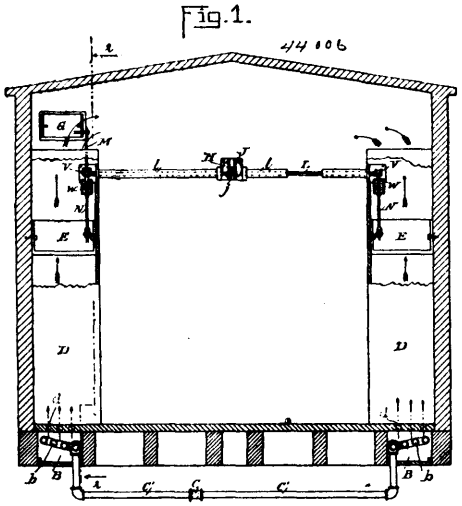
tory system which consists of a flow pipe from the water space of said boiler, a return pipe thereto, a multi-chambered cock at the



junction of said flow and return pipes, and tubes from said cock adapted to be connected with corresponding pipes from a water cylinder in a car, substantially as described. 2nd. In a street car heating system, the combination with a hot water cylinder in a car of flow and return pipes therefrom, a four-way cock connected with said pipes, tubes adapted to connect with said cock and leading to a five-way valve which is connected with the flow and return pipes of a continuous circulatory system, main ports in said five-way valve adapted to connect the tubes with said flow and return pipes and a blow off-port in said valve adapted to connect the tubes with atmosphere, a stationary hot water boiler operatively connected with said flow and return pipes, and a pump operatively connected with said return pipes, substantially as described. 3rd. In a street car heating system, the combination of a hot water cylinder in a car, air relief pipe therefrom, a hot water supply pipe longitudinally arranged in said cylinder, a return pipe from one end of said cylinder, a four-way cock communicating with said supply and return pipes, tubes from said four-way cock to a five-way valve which is connected with the flow and return pipes of the main constant hot water circulatory system, and has main ports adapted to connect the said flow and return pipes with said tubes and a blow-off port adapted to connect said tubes with atmosphere, a stationary hot water boiler operatively connected with said flow and return pipes, and a pump operatively connected with said return pipes, substantially as described. 4th. In street car heating systems, the combination of a hot water cylinder in a car, a circulating system communicating therewith and connecting at its extremity with a multi-chambered valve, a primary circulating system also connecting with said valve, and a stationary hot water boiler operatively connected with said primary system, substantially as described.

No. 44,006. Temperature Regulator.
(*Regulateur de température.*)

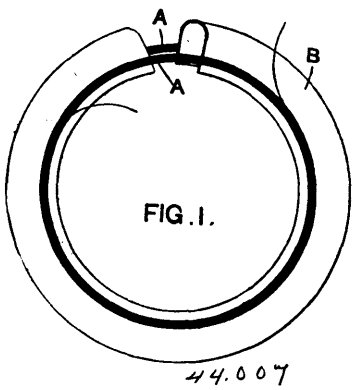
Fig. 1.



The Consolidated Car Heating Company, assignee of James F. McElroy, both of Albany, New York, U.S.A., 22nd August, 1893; 6 years.

Claim.—1st. In a temperature regulator for fruit cars, the combination of one or more diaphragms, a liquid whose boiling point is between 35 degrees Fahr. and 55 degrees Fahr., placed within the diaphragms, a frame within which said diaphragms is mounted, a lever connected with said diaphragm, a rocking shaft operated by said lever, substantially as described and for the purpose set forth. 2nd. In a temperature regulator for fruit cars, a diaphragm provided on one side near the centre with a threaded lug, on the opposite side with a threaded sleeve mounted within a suitable frame, a lever connected therewith, a rocking shaft operated by said lever, a valve placed within a hot-air duct, a rod connecting said valve with said rocking shaft and operated thereby, substantially as described and for the purpose set forth. 3rd. In a temperature regulator for fruit cars, the combination of a valve placed within a hot-air duct, a valve communicating with the exterior of the car, a rocking shaft extending across the car from one hot-air duct to the other, suitable connecting rods between the valve and the rocking shaft aforesaid, a thermostat consisting of a series of diaphragms, each containing a liquid whose boiling point is between 35 degrees Fahr. and and 55 degrees Fahr., suitably mounted, a lever operated by said diaphragms, said lever connected with said rocking shaft, substantially as described and for the purpose set forth.

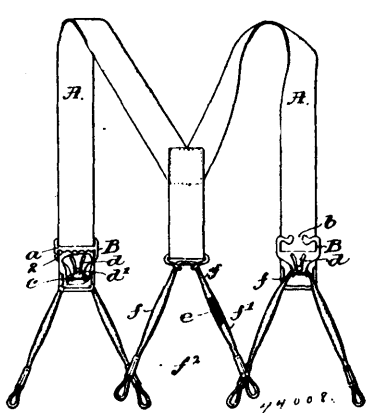
No. 44,007. Pneumatic Tyre. (*Bandage pneumatique.*)



Joseph Moseley, assignee of Benjamin Blundstone, both of Manchester, England, 22nd August, 1893; 6 years.

Claim.—1st. In combination, with the cover or tread of a pneumatic tyre, one or two endless bands each consisting of a number of turns of comparatively fine yarn thread or wire secured in or upon the edge or edges of the tread, substantially as set forth. 2nd. In combination, with the cover or thread of a pneumatic tyre one or two endless bands each consisting of a number of turns of comparatively fine yarn thread or wire charge or coated with india rubber or india rubber compound, and secured in or upon the edge or edges of the thread, substantially as set forth. 3rd. In combination, with the cover or thread of a pneumatic tyre one or two endless bands consisting of a number of turns of comparatively fine yarn or thread or wire secured upon the side or sides of the thread, and one or two flaps or edges extending beyond the band or bands, substantially as set forth. 4th. A pneumatic tyre tread, having thereon one or two endless bands composed of several turns of comparatively fine yarn thread or wire, constructed substantially as set forth.

No. 44,008. Suspenders. (*Bretelles.*)



Alfred May Ziegler, Boston, Massachusetts, U.S.A., 22nd August, 1893; 6 years.

Claim.—1st. The herein described end piece consisting of an elastic core having a braided covering capable of expansion at some portions more than at others, the end piece yielding at those portions where the covering is capable of expanding the most, substantially as described. 2nd. The herein described elastic cord consisting of a central elastic core having a tubular braided jacket, part of which is applied to the core during manufacture of the cord in such manner as to restrict the expansive diameter of the core at some points, and at other points to permit greater expansiveness, as and for the purposes set forth. 3rd. The herein described elastic cord,

consisting of a cord having an elastic core extended continuously from end to end thereof, and a tubular cover composed of individual threads interlocked about the core to hug some portions of the same closely to prevent such portions of the core from resuming their normal or unstretched condition, and loosely covering other parts of the core to allow of greater diameter owing to the contraction of the core, thus affording a springy portion, substantially as described. 4th. The herein described elastic cord, consisting of a continuous elastic core and a covering therefor, said covering being bound more snugly around the core at some than at other parts of its length, whereby the said cord presents elastic and non-elastic sections, substantially as described. 5th. The herein described elastic cord, having an elastic core extending continuously from end to end thereof, and having a covering composed of threads interlaced and binding the core more snugly at some than at other points, the parts of the cord where the core is not so closely bound being of larger diameter and possessing greater elasticity than where the cord is of smaller diameter, substantially as described. 6th. The construction, combination and arrangement of parts of apparatus, as and for the purposes set forth.

No. 44,009. Electric Signal. (*Signal électrique.*)

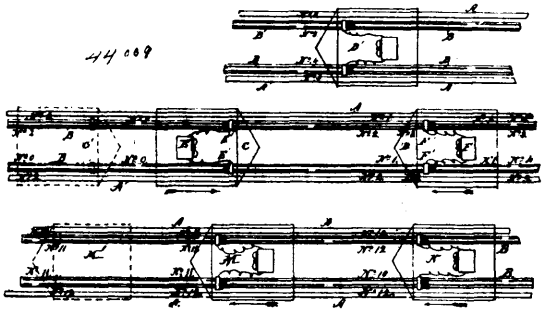
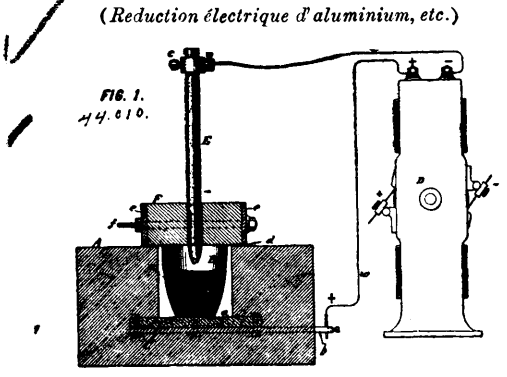


Fig 1.

Frank Hawthorne Clarke, Springfield, Ohio, U.S.A., 22nd August, 1893; 6 years.

Claim.—1st. In electric signals for railroads, the combination with a double set of electrical conductors located in parallel lines and overlapping each other in each set, and corresponding with each other, to form a double series of overlapping pairs of conductors to constitute overlapping blocks, and an audible signal, of generators producing alternating currents, carried by the trains, and electrical connections from each generator to each set of conductors respectively, said signal being in the circuit so formed whereby signals are sounded and a circuit is completed from one set to the other, when the generators of two trains are in electrical connection with the same block. 2nd. In electric signals for railroads, the combination with a pair of insulated electric conductors mounted at one side of the track, of another pair of said conductors at the other side, matching with the first pair and insulated therefrom, and so on successively, whereby a double series of overlapping blocks is formed, of generators producing an alterating current of electricity carried by trains, and electrical connections and contact between said generators and each double line of conductors respectively, and an audible signal in each train, each in the circuit so formed. 3rd. In electric signals for railroads, the combination with a double set of overlapping electric conductors forming blocks, of an auxiliary line of conductors forming a loop extending out into a side track and means to electrically connect and disconnect such side track loop with the conductor of the main line. 4th. In electric signals for railroads, the combination with overlapping electric conductors forming a double line at each side of the track and constituting blocks, of a double loop of electric conductors extending out along a side track, the ends of the loops being adjacent to each set of conductors on the main line, respectively, and an electric switch consisting of a movable plate for each set of the main line conductors, and adapted to be brought into and out of electric engagement with the ends of the side track loop by the operation of the switch in setting the switch rails for the side track and main line respectively. 5th. The herein described system of automatic signaling, the same consisting of electric generators carried by some part of trains, electrical connections and contact pieces, proceeding from the respective generators, audible signals also carried by the trains and in the generator circuits, and electric conductors adjacent to the railway bed with which said contact pieces are in electrical engagement, such line conductors consisting of a double set of lengths or sections, the lengths or sections of one set overlapping those of the same set, and the lengths or sections of each set terminating opposite to the corresponding lengths or sections of the other set, whereby electrical communication may be established between a plurality of trains occupying at the same time corresponding lengths of the opposite sets and overlapping adjacent lengths. 6th. The herein described system of automatic signaling, the same consisting of alternating current electrical generators carried by some part of trains, electrical connections and contact pieces proceeding from such generators, audible signals also carried by the trains and in the generator circuits, and electrical conductors adjacent to the road bed and composed of lengths or sections arranged in pairs at eiter side, the lengths or sections of one pair overlapping those of another pair, and the lengths or sections of the same pair terminating opposite to one another, whereby an audible signal will be sounded in a plurality of trains moving in the same direction and occupying the same section of the respective sets.

No. 44,010. Electrical Reduction of Aluminium, etc.
(*Reduction électrique d'aluminium, etc.*)



Thomas Leopold Willson, Leaksville, North Carolina, U.S.A., 22nd August, 1893; 6 years.

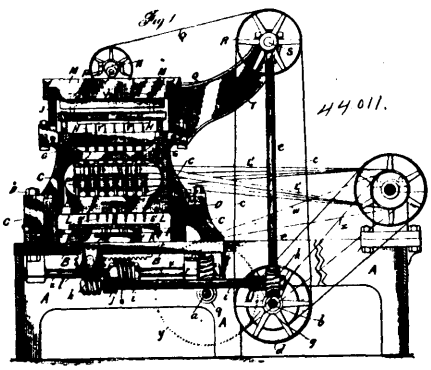
Claim.—1st. The herein described process of reducing refractory metallic oxides, consisting in subjecting them in the presence of comminuted carbon as a reducing agent to the heat of an electric arc passing between a molten metallic bath beneath and a carbon electrode above said bath, the electrode being out of contact with the molten bath and with any other conducting substance of sufficiently low resistance to extinguish the arc. 2nd. The herein described process of reducing refractory oxides which consists in subjecting them in the presence of a base metal to be alloyed therewith, to the heat of an electric arc passing between the molten bath of said base metal and a carbon electrode above said bath in the presence of comminuted carbon as a reducing agent, the electrode being out of contact with the molten bath, and with any other conducting substance of sufficiently low resistance to extinguish the arc. 3rd. The herein described process of reducing refractory oxides which consists in subjecting them to the action of an electric arc passing upwardly from an anode consisting of a molten bath of a base metal beneath to a cathode above said bath in the presence of comminuted carbon as a reducing agent, the electrode being out of contact with the molten bath and with any other conducting substance of sufficiently low resistance to extinguish the arc whereby said comminuted carbon combines with the liberated oxygen and protects the cathode from oxidation. 4th. The herein described process of producing aluminum alloys which consists in subjecting alumina in the presence of comminuted carbon as a reducing agent to the heat of an electric arc passing between a molten bath of base metal and a carbon electrode being out of contact with the molton bath and with any other conducting substance of sufficiently low resistance to extinguish the arc, whereby the oxygen freed by the decomposition of the alumina combines with said comminuted carbon and its corrosion of the carbon electrode is prevented. 5th. The herein described process of producing aluminium alloys which consists in subjecting alumina to the action of an electric arc passing upwardly from an anode consisting of a molten bath of base metal beneath to a cathode above said bath and out of contact therewith, and with any other conducting substance of sufficiently low resistance to extinguish the arc, and in the presence of comminuted carbon as a reducing agent, whereby the oxygen freed by the decomposition of the alumina combines with said carbon, so that corrosion of the cathode and the crucible by it is avoided, and the liberated aluminium is dissolved in the bath of base metal, forming an alloy therewith.

No. 44,011. Method and Apparatus for Reproducing Carvings in Wood and other Material.
(*Méthode et appareil pour reproduire de la sculpture dans le bois et autres matières.*)

Ceaser Hass, Middlesex, England, 22nd August, 1893; 6 years.

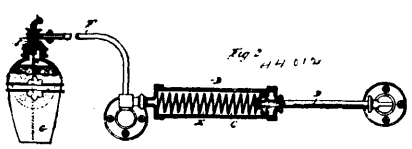
Claim.—1st. Mechanically producing a relatively incorrect or distorted negative from an original carved panel and the employment of said incorrect or distorted carved panel as the matrix by which a facsimile of the original can be produced, as hereinbefore described. 2nd. In a carving machine the employment of multiple rotating and percussive cutters in combination with the same number of dummies and a rocking plate, to which a negative or reverse carving is attached for operating and governing the vertical movements of the rotating cutter as to depth and contour of cut, all operated in the manner and for the purpose described and substantially as shown.

3rd. In a carving machine, the construction and arrangement of parts whereby a transverse and automatic reversible longitudinal



movement is imparted simultaneously to the rocking plate and panel to be carved fixed above and below the cutters respectively substantially as described and shown. 4th. In a machine for reproducing facsimiles of an original relief, has relief or other style of carvings, the employment of a relatively incorrect or distorted negative or reverse carving produced and operated in the manner and for the purpose described. 5th. In a carving machine, the use of multiple rotating and percussive cutters, constructed and supported in fixed bearings in the manner, substantially as described and shown. 6th. The arrangement for attaching the wood or other panel upon the platen, by means of screwing it to suitable battens chamfered at one end to fit the corresponding undercut in the grooves of the platen into which it is secured by a wire passing between the batten and the groove thereby allowing the panel and battens to be shifted to the left to release the chamfer and be lifted up, when the wire is removed, as described and shown. 7th. The arrangement for regulating the depth to which the panel is to be cut, by means of raising the platten by hand wheel, gearing into wheel G^1, which operates wheel H^1, I^1, revolving pinions J^1, fixed in the studs K^1, having left and right screws and all rotating in one direction thereby equally lifting the platen from all sides to the necessary height, as shown and described.

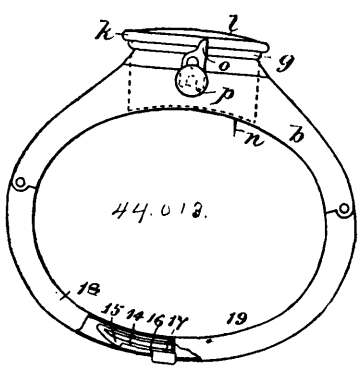
No. 44,012. Deodorizer. (*Appareil pour désinfecter.*)



John Wilson Black, Inverness, North Britain, 22nd August, 1893; 6 years.

Claim. In a spray producing apparatus, for disinfecting, deodorizing and purifying the air in apartments and the like, the combination of the pump B and its attachments, the pipe F, the vessel G, and the tube H, all operating in the manner substantially as hereinbefore described and shown on the drawing.

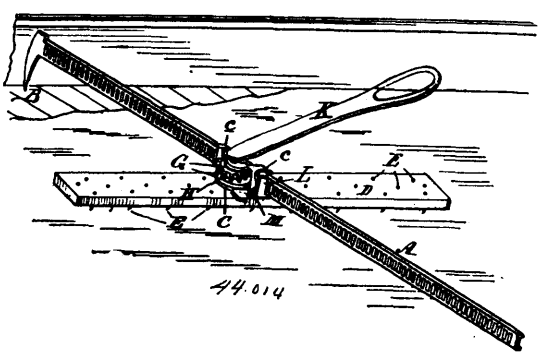
No. 44,013. Alarm Watch Bracelet.
(*Bracelet-montre à alarme.*)



Carl Otto Major, Dresden, Saxony, Germany, 22nd August, 1893; 6 years.

Claim.—1st. The combination with a setting forming part of a bracelet, of a casing rigidly held therein, stem winding watch movement contained in said casing having its hour wheel provided with a nose and its hub with a notched sleeve and carried upon a plate spring having a downwardly projecting pin at its end, a stem winding spring carrying upon its casing a cam disc and a spur wheel driving by an intermediate train a pinion having a flyer attached which is arrested or liberated by said pin on said plate spring, a spring lever having a pin or needle at its end extending below the lower surface of the casing and provided with a nose adapted to be lifted by the cams on said cam disc, substantially as set forth. 2nd. The combination with a cylindric casing, a stem winding watch movement, a plate spring f carrying the hour wheel and a pin d, a nose v upon said wheel, a sleeve 10 journalled upon the hub of said wheel and extending through the dial, a notch 11 in the flange of said sleeve adapted to coincide and receive said nose, a hand secured to said sleeve above the dial, and a bezel k holding the watch glass and having a circular groove adapted to be engaged by pins or screws and fitting rotatively in said casing and provided with a notch x adapted to engage said hand, substantially as set forth. 3rd. The combination of a watch glass bezel k provided with circular groove 13 and with a notch x and having its external rim milled to form fine ratchet teeth, a casing g adapted to receive said bezel and provided with pins or screws 12 adapted to engage the groove 13 in said bezel and a spring click or catch o secured to said casing and engaging said ratchet teeth, substantially as set forth. 4th. The combination of a spring casing c containing a spring, a ratchet wheel i on the axle of said spring, a spring click i^1 engaging said ratchet wheel, a crown wheel r with stem and milled head gearing in said ratchet wheel, a cam disk s having cams u upon said casing, a spring e carrying a needle n and a nose or projection a adapted to be operated by said cams, substantially as set forth. 5th. The combination of a spring casing c containing a spring, means of winding the same, a spur wheel 1 upon said casing, a train of pinions and wheels 2, 3, 4, 5, 6, 7, gearing with said spur wheel and operating pinion 8, a flyer 9 on the arbor of said pinion and a pin d held vertically movable by a plate spring and against which said said flyer abuts when in its depressed position, substantially as set forth. 6th. The combination of the hinged hoop of a bracelet having a setting containing a watch provided with means of giving a palpable sign, of a spring catch 14 provided with hook nose 15 and shoulder 16 and a raised shoulder 17 within the slotted hollow end of one part of the hoop, substantially as set forth. 7th. The combination of a rim or setting adapted to hold a casing containing stem winding watch and alarm movements, means of securing said rim or setting adjustably to the arm or wrist of the wearer, and spring actuated mechanism arrested and adapted to be liberated by suitable attachments and modifications to the watch works and to touch the part upon which it is worn, substantially as set forth.

No. 44,014. Carpet Stretcher. (*Tendeur de tapis.*)



Robert L. Kidd, Toronto, Ontario, Canada, 22nd August, 1893; 6 years.

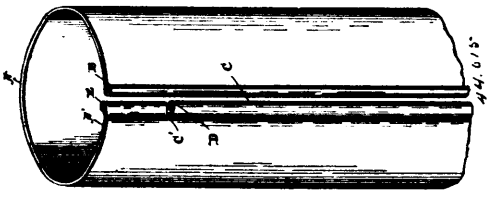
Claim.—1st. The stretcher bar D, having teeth E, and pivoted to a casting C, provided with loops C, lugs G, and a loop L, the pinion H, journalled between said lugs and provided with a lever K, for rotation of said pinion, the rack bar A, engaged by said pinion and the dog M, held by said casting and engaging the rack bar, as and for the purpose set forth. 2nd. The stretcher bar D, having teeth E, and pivotally connected to a casting C, the rack bar A, sliding through said casting and provided with a spike B, at one end, a pinion H, journalled in said casting and provided with a lever K, for rotation by hand, and engaging with said rack bar and a dog M, attached to said casting and engaging said rack bar, to hold the stretcher bar fixedly, while the carpet is being tacked, as set forth.

No. 44,015. Stovepipe. (*Tuyau de poêle.*)

Thomas S. Evans, St. Louis, Missouri, U.S.A., 22nd August, 1893; 6 years.

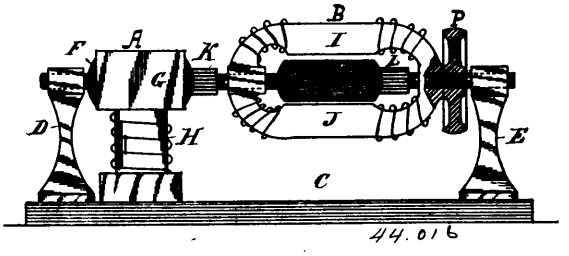
Claim.—In a stovepipe, the combination, with a blank, of an outturned lip formed on one edge of the same, the opposite edge

of the blank being formed with a transverse slot, an inturned lip formed on said edge between the slot and one end of the pipe, and



the portion of the said edge between the slot and the opposite end of the pipe bulged inward, substantially as and for the purpose shown and described.

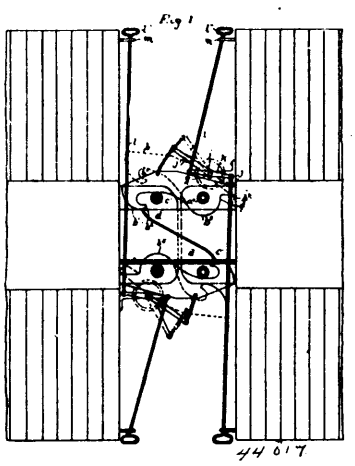
No. 44,016. Electric Motor. (*Moteur électrique.*)



Carl Hering, Philadelphia, Pennsylvania, U.S.A., 22nd August, 1893; 6 years.

Claim.—1st. A duplex electric motor, consisting of two electric motors, both having the usual parts, namely, an armature and a field, one of which parts is fixed, two of which revolve and are mechanically coupled, and the fourth of which is capable of revolving and is connected to the work. 2nd. A combination of two electric motors, mechanically coupled, both driven independently at different speeds by current from any suitable source, one motor being fixed, and the other capable of revolving as a whole at a speed equal to the difference (or sum) of the speeds of the two armatures in their respective fields, as and for the purpose described. 3rd. A combination, of two electric motors, in which one motor is stationary, the other revolves as a whole and the motors are mechanically coupled, as and for the purpose specified. 4th. A stationary electric motor, mechanically coupled with a revolving electric motor, in which both field and armature revolve, and in which the part not coupled is the driving part of the combination. 5th. Two electric motors, having one part in common, the other part of the motor being stationary, and that of the other motor being capable of revolving and of delivering power at variable speeds.

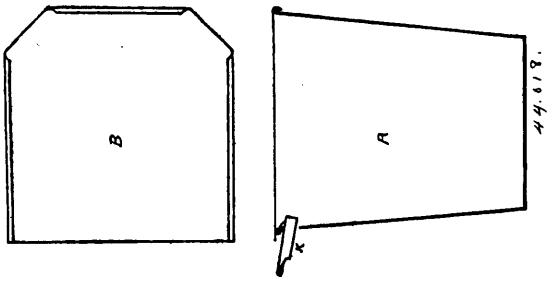
No. 44,017. Automatic Car Coupler.
(*Attelage de chars automatique.*)



Albert Dean, Ottawa, Kansas, U.S.A., 22nd August, 1893; 6 years.

Claim.—1st. A car coupling provided with draw-heads, having guide lugs upon their top and bottom surfaces, in combination with automatic gripping hooks, substantially as described. 2nd. A car coupling having a draw-head provided with guide lugs upon its top and bottom, said lugs having curved oblique frictional contact surfaces, in combination with a spring actuated catch upon one side and a socket upon the opposite side, as set forth. 3rd. In combination with a draw-head, a pair of diagonally opposite guide lugs, located respectively upon opposite sides of the draw-head, and projecting beyond the vertical face of the latter, a spring actuated hook upon one side, and a hook socket upon the opposite side, substantially as described. 4th. The combination with a solid draw-head, of a pair of diagonally opposite guide lugs made integral therewith, said lugs having oblique faces and flaring ends projecting over the face of the draw-head, a spring actuated hook provided with a head having a curved inner surface, a socket adapted to receive said head, and a removable pin located at the throat of the socket, all combined and adapted to operate as set forth. 5th. In combination with a spring actuated catch, a vertical spindle mounted in brackets secured to the end of the car, a horizontal lever fixed to turn with the spindle, and having one arm adapted to engage the heel of the catch, and the other connected by a flexible connection to the head of the catch, a cross arm fixed to the spindle, and laterally extending rods attached to the opposite ends of the cross arm, as and for the purpose set forth. 6th. In a car coupling of the class described, a draw-head provided with a hook, a socket sunk in the side of the head and adapted to receive the hook, and a spring bearing upon the side of said hook in the manner and for the purpose described.

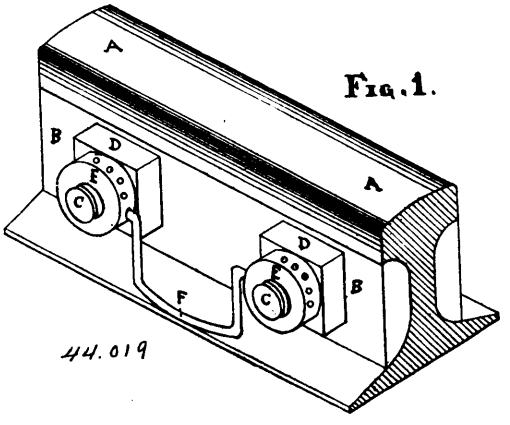
No. 44,018. Cover for Sap Buckets.
(*Couvercle pour chaudières à eau d'érable.*)



Zoël Charland, Waterloo, Quebec, Canada, 22nd August, 1893; 6 years.

Résumé.—1° Un couvercle pour chaudière ou pour seau à eau d'érable de forme quadrilatère et muni sur trois côtés de languettes ou coulisses, tel que décrit. 2° Un couvercle pour chaudière ou pour seau à eau d'érable de forme quadrilatère ayant des coulisses *a*, *a*, *a*, qui s'engagent sur le rebord de la dite chaudière ou du seau, tel que décrit.

No. 44,019. Nut Lock. (*Arrête-écrou.*)



William Atkins, St. John, New Brunswick, Canada, 22nd August, 1893; 6 years.

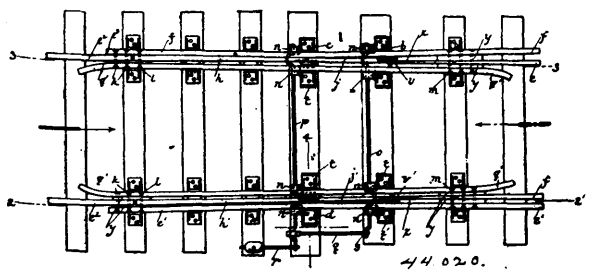
Claim.—1st. The flanged discs E, the same having a threaded orifice in their centre, and also having the said flange perforated with holes, substantially as and for the purpose hereinbefore set forth. 2nd. The combination with the discs E, of the connecting wire or spring F, substantially as and for the purpose hereinbefore set forth.

No. 44,020. Railroad Switch. (*Aiguille de chemin de fer.*)

John Adams Duggan, Quincy, Massachusetts, U.S.A., 22nd August, 1893; 6 years.

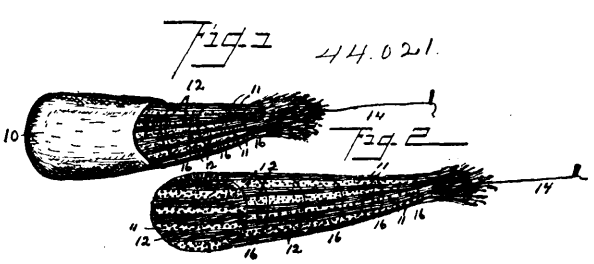
Claim.—1st. In a railroad switch, the middle rails *h*, h^1, *j*, j^1, pivoted at their outer ends by means of bolts *l*, *l*, and *m*, *m*, to the guard rails *g*, *g*, and rails *e*, *f*, and capable of being raised and lowered at the point of junction respectively, of *h* and h^1, and of *j* and

j^1, substantially as above described. 2nd. The middle rails j and j^1, constructed with a narrow upper surface so that the tread of the



wheels of a train will have a bearing over the middle rail and on the outside rail, and provided respectively with the inclines v and v^1, substantially as above described. 3rd. The inclines v and v^1 cut in the central portion of the heel part respectively, of the middle rails j and j^1. 4th. The middle rails h, h^1 and j, j^1 made in two parts, and having the upper surface of one of those parts projecting into a corresponding notch cut in the upper surface of the other part, substantially as and for the purpose above described. 5th. The chairs a, b, c and d, in combination with the strap u, the outside rail, the middle rail and the guard rail, and the rods p, o and q, substantially as described. 6th. The box n, attached to the chairs a, b, c and d, for the purpose of furnishing bearings for the rods o and p, on each side of the rails, substantially as above described. 7th. The handle r, the rods o, p, provided with cranks, the crank o being longer than that on the rod p, and having an open space in which are to be placed the cranks on the rod o and p, the connecting rod q and the crank s, substantially as and for the purpose above described. 8th. The handle r, the rods o and p, provided with cranks, the crank on the rod o being longer than that on the rod p, the connecting rod q, and the crank s, in combination, substantially as and for the purpose above described. 9th. The handle r, provided with a weight on its outer extremity, in combination with rods o, p, q, and vertically moving rails h, h^1 and j, j^1, and adapted to be actuated by the pressure of the wheel flanges of a railroad train, substantially as and for the purpose above described. 10th. The rod p, adapted to receive a greater rotary motion than the rod o, in combination with the rod o, and the rod q, substantially as and for the purpose above described.

No. 44,021. Anchor Rip-raps. (*Ancre de fascines.*)

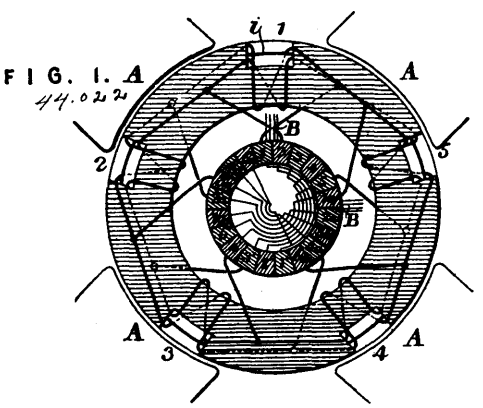


David Neale, Fort Calhoun, Nebraska, U.S.A., 22nd August, 1893; 6 years.

Claim.—1st. A rip-rapping, consisting of continuous flexible or jointed fascines and matresses with short fascines, all constructed with alternate layers of coarse and fine material deposited and anchored, substantially as shown and described. 2nd. In an anchor rip-rap, a fascine having a core of coarse crooked brush, within an annular layer of finer materials, as hay, straw, bagasse or fine leafy brush, and an envelope of canvas encasing a larger part of the down stream end, the up stream end anchored by a cable and pile, substantially as shown and described. 3rd. In an anchor rip-rap, the combination of a fascine composed of alternate layers of coarse brush and layers of fine leafy brush, hay, straw or bagasse, bound together by wires or withes, and a cable, one end attached to the fascine, the other end attached to a pile or sunken stone, substantially as shown and described. 4th. In an anchor rip-rap, the combination, with a cable and a pile, of a fascine consisting of a central longitudinal log having radial arms and enveloped with annular alternate layers of coarse and fine material, substantially as shown and described. 5th. A fascine for rip-rap, consisting of alternate layers of coarse crooked brush and layers of fine leafy brush, hay, straw or bagasse bound together by wires or withes, substantially as shown and described. 6th. A fascine for rip-rap, consisting of alternate annular layers of coarse and fine material, and an envelope of canvas covering a larger part only, substantially as shown and described. 7th. A fascine, consisting of a central longitudinal log having lateral radial arms, the whole enveloped by alternate annular layers of coarse and fine material, such as brush and straw, or bagasse, bound together by wires or withes, substantially as shown and described. 8th. A hollow fascine, consisting of a central longitudinal log having radial arms, cross-bars extending from one arm to another around and a distance from the log, the whole enveloped by one or more layers of brush straw or bagasse, substantially as shown and described. 9th. A continuous jointed fascine, consisting of a series of central longitudinal logs separately and loosely jointed together at their ends, each provided with radial arms and enveloped by annular layers of coarse and fine material bound together by wires or withes, substantially as shown and described. 10th. A continuous flexible fascine, consisting of short central longitudinal logs loosely jointed together at their ends, having radial arms and enveloped by one or more longitudinally continuous annular layers of brush, alternated with layers of fine, leafy brush, straw or bagasse, bound together by wires or withes, substantially as shown and described. 11th. A matress for rip-rapping, consisting of alternate layers of coarse and fine material with sufficient sand or earth incorporated to prevent floating, all bound together by wires located in a trench cut in the earth to receive the same, substantially as shown and described. 12th. A matress for rip-rapping, consisting of alternate layers of coarse and fine material built up with a frame of logs loosely jointed together end to end and connected laterally by cross-bars rigidly attached, the whole bound together by wires, substantially as shown and described. 13th. An anchor rip-rap, consisting of a suitable frame, a matress or brush arranged to cover said frame, in combination with a central core secured to the frame and suitable means for connecting a core with the retaining cable, substantially as shown and described.

No. 44,022. Electric Motor and Dynamo.

(*Moteur électrique et dynamo.*)



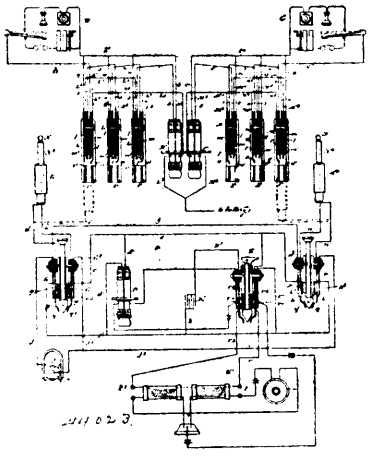
Henry Chitty, Chiswick, Middlesex, England, 22nd August, 1893; 6 years.

Claim.—1st. In a dynamo electric machine, of the multipolar type, an armature winding, in which the number of equally spaced sections, such as a^1, a^2, a^3, a^4, a^5, or what has herein been called "sets" of sections, such as a^1, b^1, c^1, d^1, or a^2, b^2, c^2, d^2, &c., is greater or less by one than the number of field poles A, the number of sections comprising a set, being equal to the number of the field poles or to any sub-multiple thereof, so that a set of sections consists of sections equally spaced and similarly situated with regard to different field poles. 2nd. A dynamo electric machine, constructed as in claim 1, and with intermediate sets, composed of corresponding coils, such as a^{x1}, a^{x2}, &c., b^{x1}, b^{x2}, &c., c^{x1}, c^{x2}, &c., d^{x1}, d^{x2}, &c., interposed in the spaces between the n, n^{x1}, sections, such as a^1, a^2, &c., b^1, b^2, &., c^1, c^2, d^1, d^2, &c., and connected in series or parallel as hereinbefore described. 3rd. The combination, of alternate magnet poles, arranged in a circle equi-distantly, an armature concentric therewith, having such a number of sections of winding that the sections may be divided into groups a^1, a^2, &c., b^1, b^2, &c., c^1, c^2, &c., d^1, d^2, &c., each containing one more or one less than the number of magnet poles A, and each section containing two distinct coils or conductors wound in opposite directions, all of the conductors in a group being coupled together so as to make the whole into one closed circuit, the connections from this closed circuit to commutator segments 1, 2, &c., and brushes B, bearing upon the commutator in such position that the direction of current from brush to brush through each section of the winding is reversed whenever that segment crosses a neutral field. 4th. A dynamo electric machine, of the multipolar type, having an armature wound, with such a number of equi-distant sections that the several sections may be divided up into groups, each composed of equi-distant sections and each containing one more or one less than the number of magnet poles, the sections in a group, each containing two distinct coils or conductors wound in opposite directions, the ends of the several coils or conductors of that group being connected together either directly or after connection successively with the corresponding coils or conductors

of the several other groups, alternately in opposite directions, so that the whole of the double series of coils or conductors from a closed circuit, alternate coils being wound in opposite directions, substantially as described. 5th. A dynamo electric machine, of the multipolar type, having on its armature as many such equally disposed groups of sections of winding as there are magnet poles or any multiple or sub-multiple of such number, and commutator connections so disposed that while the direction of current in the sections, a^1, a^2, &c., in a group is changed successively in succeeding neutral fields, the corresponding sections b^1, b^2, &c., c^1, c^2, &c., d^1, d^2, &c., of the several groups comprising what is herein called a "set" a^1, b^1, c^1, d^1, sections equally spaced and similarly situated with regard to different magnet poles, are commutated simultaneously.

No. 44,023. Telephone Switch Board.

(*Appareil d'échange de téléphone.*)



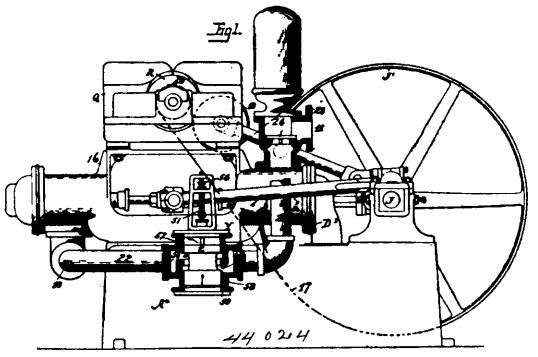
Charles Warren Brown, Montreal, Quebec, Canada, 22nd August, 1893; 6 years.

Claim.—1st. In a telephone system, a substation circuit including the annunciator and terminals at the switch board, arranged upon the open and closed contact systems. 2nd. In a telephone switch board system, the combination of a substation circuit including the terminals and annunciators at the switch board arranged upon the open and closed contact systems, and through which a normally closed circuit is established for signalling purposes, and a local or loop circuit containing the switch board, operator's instruments and call, normally disconnected from said substation terminals, and acting when connected therewith to open said closed circuit and clear the line. 3rd. In a telephone switch board system, the combination with substation terminals and annunciators connected with the line and such terminals containing open and closed contact devices, the latter of which controls the connection of said annunciators with the line, of a local or loop circuit containing the switch board, operator's instruments and call, adapted to be connected with said terminals, and when so connected to cut said annunciators out of the line. 4th. In a telephone switch board system having substation annunciators, clearing out annunciators, plug and spring jack contact makers, the combination in such spring jacks, of normally open and closed contact devices, the latter of which controls the connection of said substation annunciators with the line. 5th. A switch board spring jack contact maker, containing normally open and closed contact devices, as set forth. 6th. The switch board spring jack contact maker L, having in combination with an insulated metal strip l carrying contact pieces l^1, the insulated inner spring contacts m, m^1, with one of which said contact piece is normally in contact, an outer free spring O, and a fixed strip connection O^1, and the bush contact P, also severally insulated, as shown and described.

No. 44,024. Electric Pump. (*Pompe électrique.*)

Milan W. Hall, Plainfield, New Jersey, U.S.A., 22nd August, 1893; 6 years.

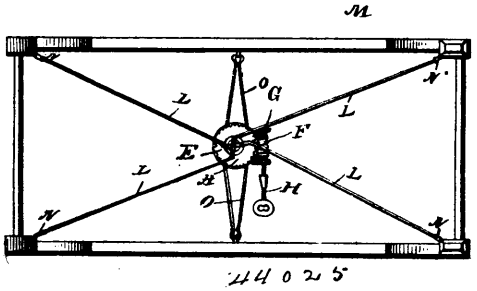
Claim.—1st. A pumping engine provided with an electric motor, having an armature constructed to revolve continuously in one direction, with connected cylinders having ports, and containing reciprocating pistons each provided with a port and a valve to afford a channel for the continuous flow of the fluid in one direction, and connections between the armature and the pistons constructed to reverse the movement of each piston before the other arrives at one end of its stroke, substantially as set forth. 2nd. The combination in an electric pumping engine, of a motor having an armature revolving continuously in one direction, and a pump provided with two or more reciprocating valved pistons, and connections for moving said pistons from the armature, each with a slow forward and quick return movement, and for reversing the movement of each before the other arrives at the end of its stroke, substantially as set



forth. 3rd. The combination in a pump of four cylinders connected in series and provided with valved pistons, and means for operating the latter for starting one piston upon its working stroke before the termination of the working strokes of the other pistons to maintain a continuous movement of a column of water through the cylinders at practically a uniform speed, substantially as set forth. 4th. The combination, in a pump, of four cylinders arranged and connected for the fluid to flow through the same successively, valved pistons, and piston-rods each connecting two pistons of adjoining cylinders, and a crank shaft having cranks at right angles each connected with one of the piston-rods, substantially as set forth. 5th. The combination, with the inlet and outlet of a pump, of a connecting channel, a valve arranged in such channel, and means for automatically shifting the valve to close the channel as the pump acquires its operating speed, substantially as set forth. 6th. A pump, provided with connected cylinders having inlet and outlet ports, reciprocating valved pistons in said cylinders whereby to force the water in one direction through the same, and means, substantially as described, to move each piston with a slow lifting stroke and a quick return stroke, and for reversing the direction of one before the movement of the other is completed, substantially as set forth. 7th. The combination, in a pump, of two valved pistons, moving in connected cylinders, and a driving gear for imparting to each a slow working stroke and a quick return stroke consisting of a driving crank shaft, and two rock levers connected each to the corresponding piston, two links connecting said levers with the cranks whereby the levers are vibrated from the crank at varying speeds, substantially in the manner and for the purpose set forth. 8th. The combination, with the cylinders and pistons, of a duplex or multiple pump, and with the openings and valves with the pistons thereof, of auxiliary openings or passages between the ends of the cylinders and self-acting valves adapted to said openings, substantially as set forth.

No. 44,025. Furniture Brace Tightener.

(*Agrafe lien de meubles.*)

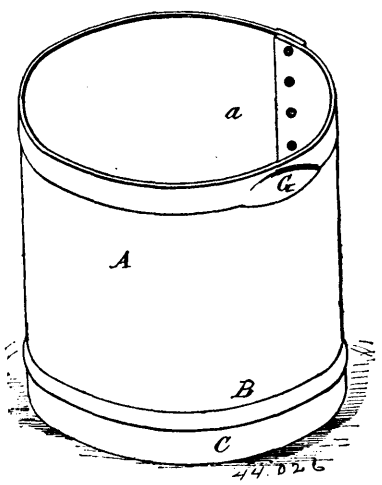


Baxter Shemwell and John A. Davidson, both of Chicago, Illinois, assignees of Horace L. Freeman, Lexington, North Carolina, all in U.S.A., 23rd August, 1893; 6 years.

Claim.—1st. A tension device, having concentric, independently rotatable discs, carrying twisting hubs, and provided, respectively, with a worm and worm teeth, substantially as specified. 2nd. A tension device, having concentric, concaved discs mounted upon a common pivot pin and provided with twisting hubs, and a worm mounted upon one disc and engaging worm teeth upon the other, substantially as specified. 3rd. A tension device, having concentric discs provided with twisting hubs having diametrically opposite receiving slots, and the worm carried by one disc to engage worm teeth upon the other, substantially as specified. 4th. In combination with intersecting bracing wires, the tension device comprising concentric twisting discs, provided with slotted hubs to receive the wires, and a worm mounted upon one disc to engage peripheral worm teeth upon the other disc, substantially as specified.

No. 44,026. Measuring Vessel.

(*Vaisseau à mesurer.*)



George W. McKim and Henry Floto, both of Martins Ferry, Ohio, U.S.A., 23rd August, 1893; 6 years.

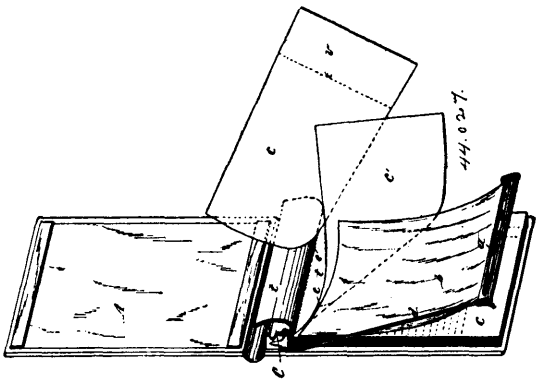
Claim.—1st. A metallic measure having a yielding chine portion provided with an annular groove, and a bottom piece fitted in such groove, substantially as shown and described. 2nd. A metallic measuring vessel formed with a yielding chine portion having bent portions, forming annular shoulders, and a bottom plate fitted between such shoulders, substantially as and for the purposes described. 3rd. A metallic measuring vessel consisting of a sheet metal plate bent to form the sides, and having an outwardly pressed annular shoulder at its lower end, and such lower end bent inward upon itself to form a yielding chine portion, said chine portion having an annular groove, and a bottom plate fitted in such groove, substantially as described. 4th. A metallic measuring vessel formed of a single metal sheet having its ends lapped and riveted and the lower edge bent inward upon itself and then bent to form double annular shoulder portions and a metal bottom plated fitted between such shoulders, as and for the purpose described. 5th. In a metallic measuring vessel, in combination, a metal body having an outwardly bent shoulder near its lower end, extended entirely around the said body, said lower end bent inward to fit under the said shoulder and adapted to form a yielding chine portion, the free end of such chine portion having double lapped portions on its inner face, forming shoulders, and a metal bottom plate fitted in such shoulder, all substantially as shown and for the purpose described. 6th. In a metallic measuring vessel, the combination of the metal body A, having an annular shoulder B, a chine portion C, bent inward at the bottom, said portion bent to form loop portions c^2, c^3 and c^4, c^5, in combination with the bottom plate fitted between such loop portions, said loop portions and the chine portion adapted to fit under the shoulder D, when pressed outward, all substantially as and for the purpose described. 7th. A metallic measuring vessel, consisting of a sheet metal plate bent to form the sides of the body, a bottom plate fitted in the lower end thereof, the upper edge of such body having laterally projecting handle portions formed integrally therewith, substantially as shown and described. 8th. A sheet metal measuring vessel, having an outwardly overlapping edge at its upper end, said edge having outwardly bent portions, forming handle members, substantially as and for the purpose described. 9th. A metallic measuring vessel, comprising a body formed of a single sheet, having its ends lapped and rivetted, its lower edge folded inward to form a chine portion, and its upper edge bent outward to form an overlapping edge, said edge having outwardly bent portions to form handles, and a bottom plate connected with the yielding chine portion, all substantially as shown and for the purpose described.

No. 44,027. Manifold Memorandum Book.

(*Livres de notes multiples.*)

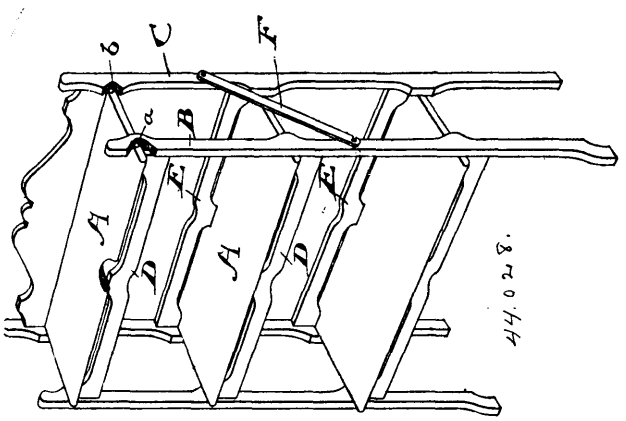
Carter & Company, Limited, Niagara Falls, New York, assignee of Walter Winfield O'Hara, Arlington, Massachusetts, all in U.S.A., 23rd August, 1893; 6 years.

Claim.—1st. The combination with the memorandum book having its leaves bound together at one end, of a rod attached at one end to said book at the fixed ends of the memorandum leaves and extending along one side of the book, a clamp on the free end of said rod, and the carbon sheet attached to said clamp and lying with its free end normally adjacent to the fixed ends of the memorandum leaves, whereby the uppermost copy leaf may be drawn out laterally from under the carbon sheet and severed from the book, and a memorandum retained in the book, as set forth. 2nd. A manifold memorandum book having its leaves arranged in sets of three each, the top and bottom leaves of each set having rows of perforations to facilite the severing thereof from the book, the intermediate leaf being of tissue paper, and a sheet faced with carbon on both sides



and inserted between the tissue paper and subjacent copy leaf, substantially as described.

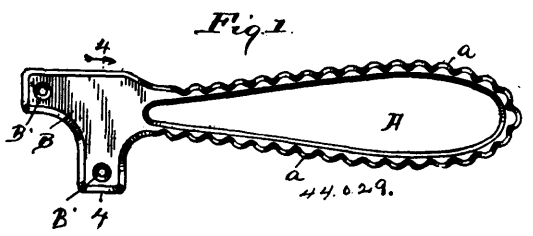
No. 44,028. Folding Book Rack. (*Rayon pliant pour livres.*)



James Walter Lyon, assignee of George Porteous, both of Guelph, Ontario, Canada, 23rd August, 1893; 6 years.

Claim.—A rack consisting of a series of shelves, each shelf pivoted to a pair of uprights B, at *a*, and a pair of uprights C, at *b*, the uprights B, being fitted together by a cross-bar D, below the pivots *a*, and the uprights C, by a cross-bar E, above the pivots *b*, the uprights B and C, and further connection by a bar F, substantially as and for the purpose specified.

No. 44,029. Knife Handle. (*Manche de couteau.*)

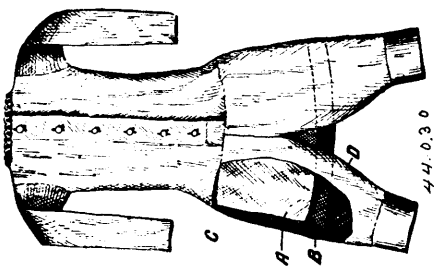


The Clauss Shear Company, assignee of John Jacob Eberhard, both of Fremont, Ohio, U.S.A., 23rd August, 1893; 6 years.

Claim.—1st. A knife handle comprising a single malleable iron casting, and terminating at its forward end in a clip adapted to closely embrace the shank of the knife, the clip being perforated for the reception of rivets or other securing devices, and being recessed or chambered at the rear internally, said chamber or recess being adapted to embrace a corresponding member of the knife, substantially as and for the purpose set forth. 2nd. As an article of manufacture, a knife handle terminating at its forward end in a clip comprising a pair of jaws formed by splitting the ends of the handle, the crotch of the split end having a recess b^1 formed therein, and shoulders b^2, adjacent to the ends of the recess, the members of the clip terminating in two projections extending substantially at right angles to each other, and triangularly arranged relative to the recess, said projections having holes formed therein adapted to receive screws, nails or rivets for securing the clip to the blade held by them, substantially as set forth.

No. 44,030. Combination Garment.

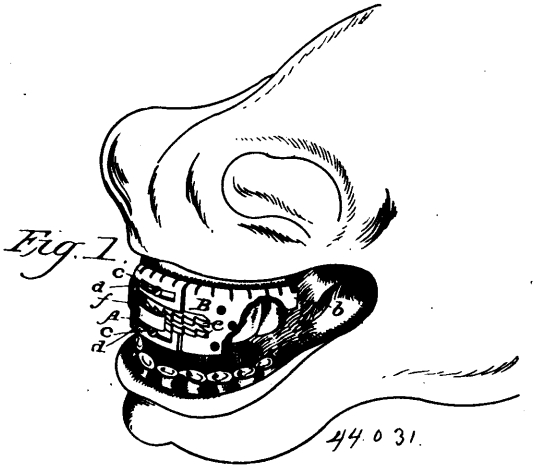
(*Vêtement à combinaison.*)



Richard Staple, William Smith and Henry Smith, assignees of Rose Mary Shelley, all of London, England, 23rd August, 1893; 6 years.

Claim.—The combination with the body part of a combination garment, of one or two aprons A, B, as described and set forth.

No. 44,031. Anti-Cribbing Device. (*Appareil pour empêcher les chevaux de ronger leurs mangeoires.*)



Ernest Burvill Holmes, Royesford, Allen Zuyler Keelor, Boyerstown, and Edwin Yost Keelor, all in Pennsylvania, U.S.A., 23rd August, 1893; 6 years.

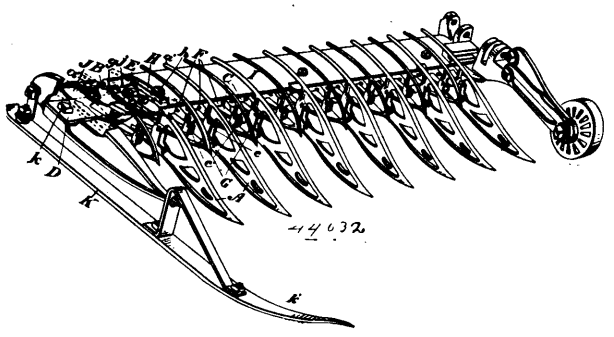
Claim.—1st. An anti-cribbing device, consisting of plates adjustable with respect to each other, in combination with a ratchet secured to one of said plates and a co-operating pawl secured to the other plate, substantially as described. 2nd. An anti-cribbing device, consisting of plates adjustable with respect to each other, in combination with a ratchet secured to one of the plates, and a co-operating ratchet secured to the other plate, said plates having means for engagement with loosening and tightening pliers, substantially as described. 3rd. An anti-cribbing device, consisting of plates adjustable with respect to each other, and having pin and slot connections, in combination with a ratchet secured to one of said plates and a co-operating pawl secured to the other plate, substantially as described.

No. 44,032. Pea Harvester.

(*Appareil pour récolter les pois.*)

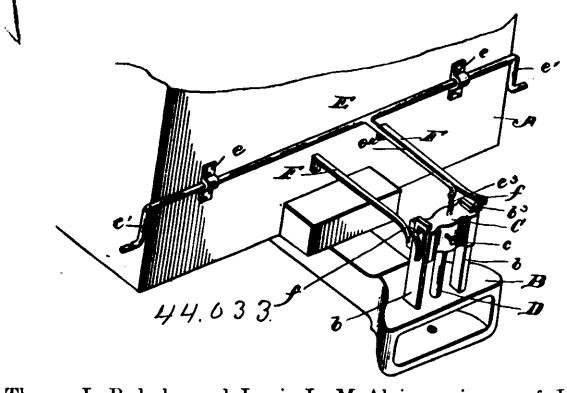
David Tolton, Guelph, Ontario, Canada, 23rd August, 1893; 6 years.

Claim.—1st. In a pea harvester, the combination with the mower bar supported at the inner end, and provided with a divider at the outer end, as specified, of a supplemental shoe or runner secured to the mower bar near the outer end thereof, extending rearwardly and designed to support the divider from the ground, as shown and for the purpose specified. 2nd. The combination with the mower bar, knife and guards, of the lifter A, provided with a continuous lower rib *a*, hinged to the pivot rod or bar supported on the mower bar to the rear of it, and the upper rib extending above and slightly to the rear of the mower bar, as and for the purpose specified. 3rd. The combination with the mower bar, knife and guards, of the lifter A, provided with a continuous lower rib *a*, hinged to the pivot rod or bar B, supported by the brackets H on the lower bar, and upper rib a^1, extending above and to the rear of the mower bar, of an apron I, extending from the front of the mower bar D, to the rear of the pivot bar B, as and for the purpose specified. 4th. The combination with the mower bar, knife and guards, of the lifter A, provided with a continuous lower rib *a* hinged to the pivot rod or bar B, supported by the brackets H, attached to the mower bar, the upper rib a^1 extending rearwardly to a point above and to the rear



of the mower bar, and the supplemental lifters G, provided with a continuous lower rib pivoted on the bar B, and an upper rib extending back to the point above and to the rear of the mower bar, as and for the purpose specified. 5th. The combination with the mower bar, knife and guards, of the lifters A, and supplemental lifter G, having continuous lower ribs *a* and *g*, respectively hinged to the rear pivot bar B, and having upper ribs a^1 and g^1 respectively, of the slots *c* and c^1 formed to the rear of the webs of the lifters A, and supplemental lifters G, into which the guard points extend, as and for the purpose specified.

No. 44,033. Car Coupler. (*Attelage de chars.*)



Thomas L. Bedsoles and Lewis L. McAlpin, assignees of James S. Derrough, all of Walnut Hill, Louisiana, U.S.A., 23rd August, 1893; 6 years.

Claim.—1st. The combination with a car, of a draw bar, movable longitudinally with respect to the car, a slide located above the draw bar, and carrying a coupling pin, devices for elevating said slide and pin and holding them in an elevated position, and a tripping mechanism secured to the car, and adapted to be engaged by a part connected with the movable draw bar to release said slide and pin, when the draw bar is forced inward in the act of coupling, substantially as described. 2nd. The combination with the car, of a draw bar, movable longitudinally with respect to the car, a slide carrying a coupling pin mounted on said draw bar, a catch for retaining the slide in elevated position, a releasing device for said catch, secured to the car and adapted to be operated by the inward movement of the draw bar in coupling, to release said slide and pin, substantially as described. 3rd. The combination with the draw bar, of a slide carrying a coupling pin, vertical guides for said slide secured to the draw bar, devices for elevating said slide, spring catches secured to said guides for engaging the slide and holding it in an elevated position, stationary arms secured to the car, having cam portions adjacent to said spring catches, for automatically releasing the slide when the draw bar is forced inwardly in coupling, substantially as described.

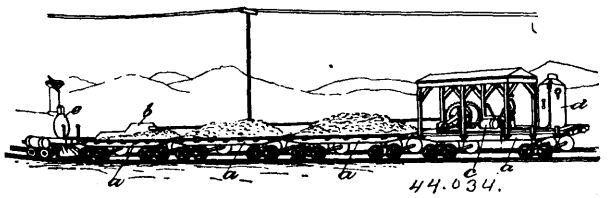
No. 44,034. Device for Unloading Gravel Trains.

(*Appareil pour décharger les trains de gravier.*)

William D. Stratton and John H. Drake, both of Middletown, New York, U.S.A., 23rd August, 1893; 6 years.

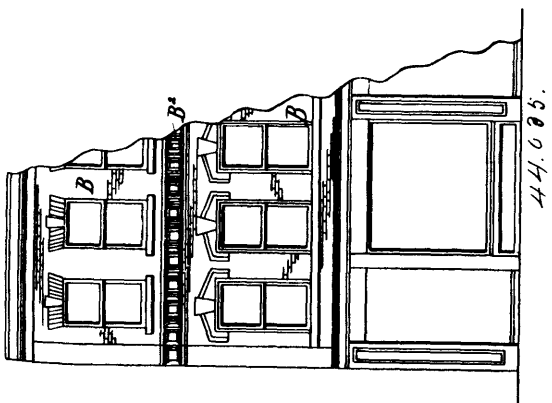
Claim.—1st. The combination with a train of flat cars, of a scraper adapted to be moved from end to end of the train while the engine moving the same remains stationary with relation to the car, upon which it is mounted, a separate rope, drum engine located upon a car coupled to the train at the end opposite to that from which the plow starts, and a rope connecting the scraper with the rope drum, substantially as described. 2nd. In combination with a train of flat cars, a scraper adapted to be moved from end to end

of the train, a rope drum engine located upon a car coupled to the train, a rope connecting the scraper with the rope drum and a



locomotive engine, whereby the whole may be moved to cause the scraper as it advances relatively to the train, to occupy a determined position relatively to the track, substantially as described.

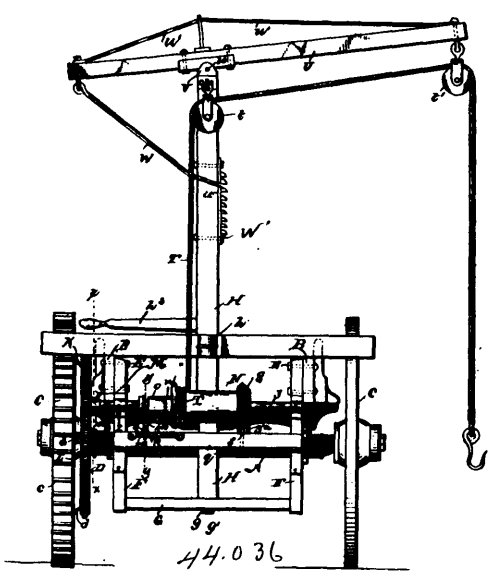
No. 44,035. Veneered Building. (*Batisse en placage.*)



Frank Reardon, Halifax, Nova Scotia, Canada, 23rd August, 1893; 6 years.

Claim.—A veneer for covering buildings, consisting of sheets of glass painted on the inside to imitate stone or brick, the said sheets of glass being cemented to the sheeting of the building, a cement impervious to moisture being used in the joints, substantially as set forth.

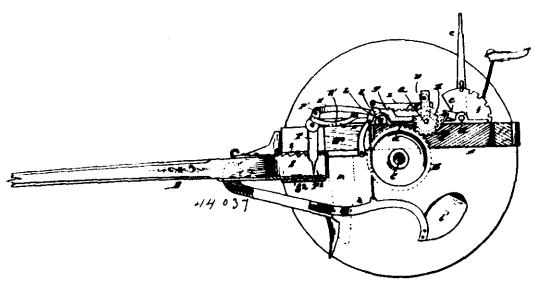
No. 44,036. Loading Device for Wagons.
(*Appareil à charger pour wagons.*)



Charles W. Hays, Stratford, Illinois, U.S.A., 23rd August, 1893; 6 years.

Claim.—1st. In a loading and unloading attachment for wagons, the combination, with a wheel supported rack or wagon, of an attachment frame secured to the rear end of the rack or wagon body, clutch winding devices mounted on said frame and driven from one of the wheels of the rack or wagon, a derrick standard mounted to revolve in said attachment frame and removably held in position, a bearing plate attached to the top extremity of said derrick standard, a tilting adjustable derrick arm having a top truss, a removable pivot plate clamped to the lower side of the derrick arm at a point intermediate of its ends and having opposite pivot or fulcrum lugs journalled in the bearing plate on top of the derrick standard, an adjusting brace pivoted at one end to the extremity of the short end of the derrick arm and having an adjustable connection with the derrick standard, rope pulleys attached to the upper end of the derrick standard and the extremity of the long end of the derrick arm respectively and a hoisting rope passing over said rope pulleys and attached at one end to the clutch winding devices, substantially as set forth. 2nd. The combination, with suitable hoisting devices, of a revoluble derrick standard, a turning lever attached to said standard, bearings at the upper end of the standard, a rack bar secured to one side of the standard, a trussed tilting bearing arm having centrally disposed pivot or fulcrum lugs mounted in said bearings on the standard arm, an adjustment slip brace connected to one end of the derrick arm and having a slip loop or eye embracing the standard and adapted to engage the teeth of the rack bar, pulleys on the standard and the arm, and the hoisting rope strung over said pulleys, substantially as set forth. 3rd. The combination, with a wheel supported rack or wagon, of an attachment frame secured to the rear end of the body of said rack or wagon and having a lower supporting cross-bar provided with a central bearing perforation, a bearing cross-bar arranged on the top of said body at its rear end, a revolable derrick standard having a lower bearing end working in the bearing perforation of the lower cross-bar, and an annular groove at an intermediate point, a bearing box removably clamped to one side of the bearing cross-bar on top of the body and fitting said annular groove in the derrick standard, and suitable hoisting devices, substantially as set forth.

No. 44,037. Potato Planter. (*Semoir à patates.*)



Charles Irish, Traverse City, Michigan, U.S.A., 23rd August, 1893; 6 years.

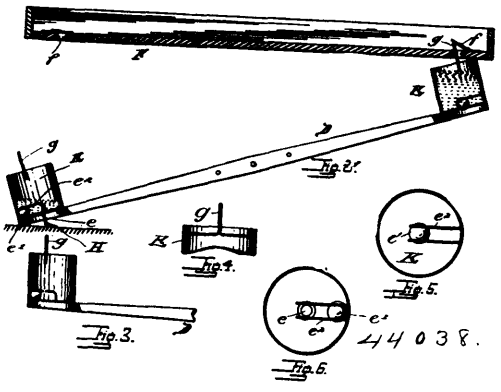
Claim.—1st. In a potato planter, the combination with a frame, axle and driving wheels, of the gear wheels, actuating rack, rock shaft, and links, actuating a fork and a revolving hopper, substantially as described. 2nd. In a potato planter, the frame and driving wheels, a master wheel, a hinged frame carrying gear wheels adapted to swing in and out of connection, actuating master wheel, a rack bar linked to a sleeve on a rock shaft, a fork and wiper bars actuated by said rock shaft, means for causing the rack arm to engage with and actuate the rock shaft, substantially as described. 3rd. In a potato planter, the combination with the main frame work, a hopper, and means for rotating the same on its vertical axle, a tined fork, means for giving said fork vertical motion, a guiding chute, and furrowing plow and covering plows, substantially as and for the purpose specified. 4th. In a potato planter, the combination of the main frame, wheels and axle, the plow beam, furrowing plow and covering plow, a rotating hopper, a fork and rock shaft, means for giving to the rock shaft an intermitting motion, and mechanism intermediate of the rock shaft and the fork, whereby the fork is lifted vertically out of said hopper and carried over a chute, substantially as and for the purpose described.

No. 44,038. Hydraulic Motor. (*Moteur hydraulique.*)

Spencer Stewart Marsh, Atlanta, Georgia, U.S.A., 23rd August, 1893; 6 years.

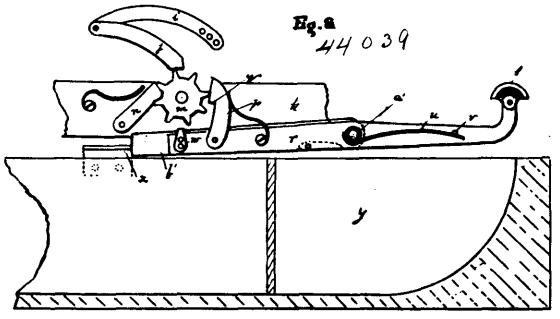
Claim.—1st. In a device of the class specified, a lever pivoted at its centre and movable in a vertical plane on said pivotal point carrying a bucket on each of its ends, each bucket having an aperture in its bottom and a ball seated over said aperture when the bottom of said bucket is substantially horizontal and adapted to roll from or over said aperture upon the departure of said bucket from said horizontal position, and means for guiding said ball in its movement, in combination with a water supply adapted to fill said buckets on their elevation, for the purpose specified. 2nd. In a device of the class specified, a lever pivoted near its middle and movable in a vertical plane on its pivot, and carrying a bucket on each end, each bucket having an aperture in its bottom, a ball normally

seated over said aperture adapted to roll from or over said aperture on the tilting of the lever, and guides for said ball in its movements



consisting of wires enclosing same, in combination with the water supply adapted to fill said buckets on their elevation, substantially as and for the purpose specified.

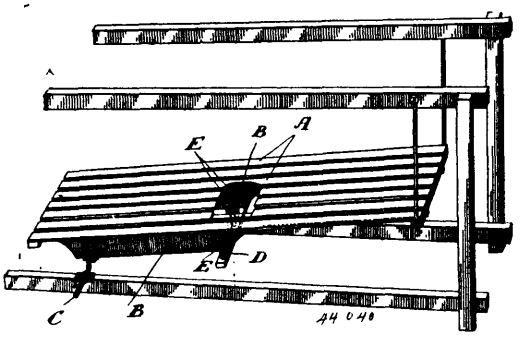
No. 44,039. Cash Register. (*Registre de monnaie.*)



Charles Raymond, Guelph, and John Sharpe, Toronto, both of Ontario, Canada, 24th August, 1893; 6 years.

Claim.—1st. The combination, with the carrying device consisting of the sliding plate I^2, with a rocking dog N^2, having sping F^2, and pins O^2, and P^2, attached thereto and a catch to engage with the front end of the dog D^2, for the purpose set forth substantially as described. 2nd. The combination, with a division plate B^2, a gear wheel G^1, having pins H^1, to engage with cam E^2, on the rear end of the dog N^2, and the arm S^2, as and for the purposes set forth substantially as described. 3rd. In the combination, with the division plate B^2, a gear wheel G^1, having pin H^1, to engage with cam E^2, on rear end of dog D^2, and the front end thereof with the rocking dog N^2, and the arm S^2, as and for the purpose set forth substantially as described. 4th. The combination of a sliding frame having a shoulder Z^4, to engage a paul Q^2, and prevent the passage of more than one tooth of the spur wheel X^2, at one time, also a spring P^2, to carry the frame rearward as and for the purpose specified. 5th. The combination of the shaft B, the loose registering discs thereon, the carrying mechanism to engage therewith at predetermined periods, the discs J, K, and L, secured to the registering discs having notches 12, 13 and 14, which also engages with pins I, on the gear 9, 10, and 11, for the purpose herein set forth substantially as described. 7th. The combination of the registering discs, the carrying discs secured and mounted loosely on the shaft, the collars A, secured to said shaft between said discs and having an extending cam C, to engage the rear side of the dog O, for the purpose herein set forth substantially as described. 8th. The combination of the carrying discs, a series of gear wheels 9, 10 and 11, which are securely locked by the periphery of said discs, and the pins I, when the latter is not in engagement with the notch 14, for the purpose herein specified. 9th. The combination of the shaft A, a block G, secured thereto, to support the gear wheels 9, 10 and 11, a fork E, secured to one end of said shaft, and for the purpose of rocking the same when it becomes necessary to disengage the said gear with the registering disc, for the purpose herein set forth substantially as described. 10th. The combination of the finger key, the rear thereof connected to the ratchet bar, a supporting frame V, a spring dog secured thereto, the said dog engaging with the teeth M^1, on the upward movement of said ratchet bar, as and for the purpose herein set forth substantially as described. 11th. The combination of the finger key, the ratchet bar having an elongated stud N^1, on its rear side thereof, to engage with the rocking dog P^1, secured to the supporting frame N^1, for the purpose herein set forth, substantially as described. 12th. The combination of the finger keys, the ratchet bars, the supporting frame O^1, secured at its lower end to the rectangular frame T, and secured to the said frame O^1, the rocking dog P^1, having a pin R^1, extending through a slot S in the said frame, and held to the front side thereof by a spring T^1, for the purpose herein specified. 13th. The combination of the rectangular frame T, and the secondary rectangular sliding frame V, having irregular divisional openings and overhanging the rear arms of the finger keys U, to engage with the latter for the purpose herein set forth, substantially as described. 14th. The combination of the rectangular frame T, and the sliding frame V, secured thereto by the studs X, extending through the slot V, also a spring Z, secured at one end to the frame T, the other end of said spring pressing against the pins Y, forcing the said frame in one direction for the purpose herein specified. 15th. The combination of the rectangular sliding frame having a bevel B^1, at the lower end of the blanks thereof to engage with the rear end of the finger keys U, when the latter will force the said frame against the resistance of springs Z, sufficiently far to bring the opening of the frame V opposite the opening in the frame T, through which said key may happen to be engaged with, for the purpose herein set forth, substantially as described. 16th. In a cash register, the combination of the finger keys, a forward extending arm w^2, the dog J, and the gear wheel m, actuated by the said dog J, to force the latter forward, and cause the dog n to engage the next succeeding space in the gear wheel m, for the purpose herein set forth, substantially as described. 17th. In a cash register, the combination of a series of operating finger keys, an operating bar s, to be operated in common and in addition to all operations of the said finger keys, a lever r, having a dog p, to engage with the gear wheel m, carrying the lower tooth of the said gear wheel of the path of the arm w, for the purpose herein set forth, substantially as described. 18th. The combination of a series of operating finger keys, and the connecting mechanism thereto, whereby the operation thereof unlocks certain mechanism that the drawer may be released by the extended arm b^1, on the first operation of the bar s, subsequent to operating the said finger keys, as and for the purpose herein set forth, substantially as described.

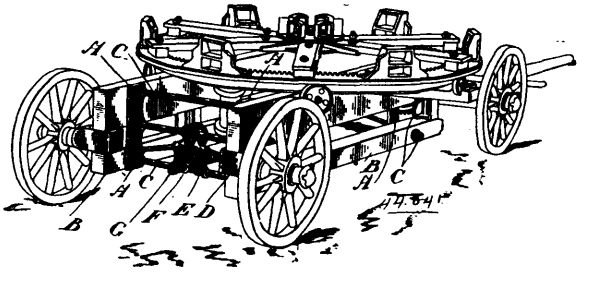
No. 44,040. Threshing Machine. (*Machine à battre.*)



Archibald Filshie, Mount Forest, Ontario, Canada, 24th August, 1893; 6 years.

Claim.—As an improved straw deck, a series of thin slats arranged between the sides, in combination with a series of strute E, arranged between the slats A, and cross bar C, substantially as and for the purpose specified.

No. 44,041. Horse Power. (*Puissance en chevaux.*)



Archibald Filshie, Mount Forest, Ontario, Canada, 24th August, 1893; 6 years.

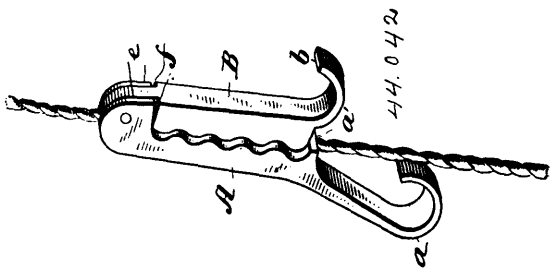
Claim.—A girth extended below the axle of the horse power carriage and forming a support for a bearing box to carry the axle close to the ground, substantially as and for the purpose specified.

No. 44,042. Fire Escape. (*Sauveteur d'incendie.*)

Lucretia Lester, Cuba, New York, U.S.A., 24th August, 1893; 6 years.

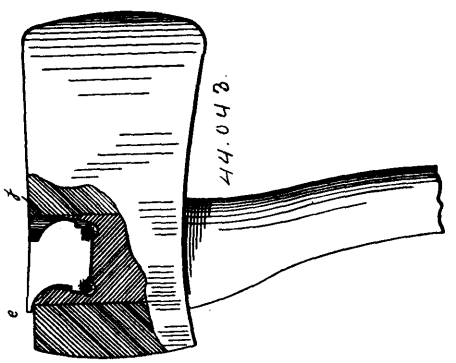
Claim.—1st. In a frictional fire-escape, the combination of the jaws A and B, having a series of corrugations with central recesses, said sections being pivoted to each other, substantially as shown and

for the purpose set forth. 2nd. In a frictional fire-escape, the combination of the sections A and B, provided with corrugations having



central recesses, and a pivot for securing the parts to each other, one of the sections having a straight portion above and to the side of the pivot, substantially as shown, and for the purpose set forth. 3rd. In a frictional fire-escape, the combination of the sections A and B, having currugated inner faces, one of the sections having a projecting lug, with an aperture serving as aguide for the rope, and a hook *a*, outwardly extended portion having a pivot to one side or out of line with the aperture *d*, a section B, having a straight portion above the pivot, shoulders *f f*, and a hook at the end farthest from the pivot, substantially as shown.

No. 44,043. Tool Wedge. (*Coin pour outils.*)

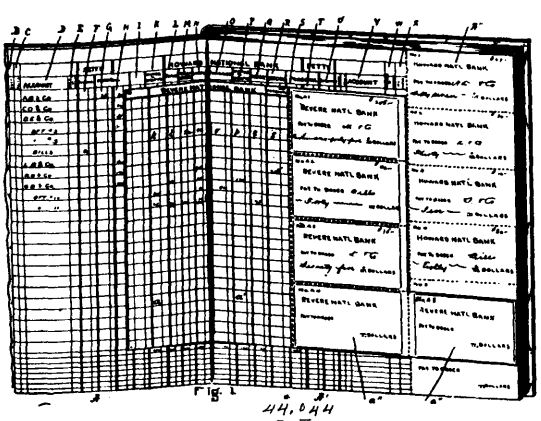


George Peverly Morrill, Canterbury, New Hampshire, U.S.A., 24th August, 1893; 6 years.

Claim.—1st. An axe-wedge provided with a projecting horn *c*, and a concave curved section C and having the outline of the opposite end an exact reversal in form of said horn and said concave section, substantially as described. 2nd. An axe-wedge provided with the projecting horn *c*, the concave curved section C, the angular projection *a*, and having the outline of the opposite end an exact reversal, substantially as described.

No. 44,044. Book-keeping Book.

(*Livre pour tenue de livres*)

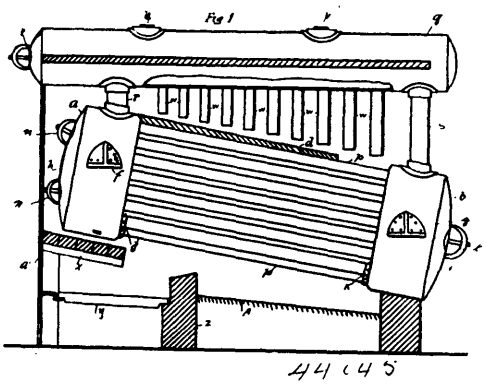


Charles Stacy Hall, Medford, Massachusetts, U.S.A., 24th August, 1893; 6 years.

Claim.—1st. A cash, check and journal book, consisting of a main folio having the pages A and A[1], sub-divided in vertical columns for cash and check entries and provided with detachable checks, and a reduced journal sheet placed upon the main folio pages and having pages *a* and *a*[1], also sub-divided in vertical columns and provided with detachable checks, substantially as described. 2nd. The herein described combined cash, check and journal book consisting of a main folio having pages A and A[1], divided in vertical columns for cash and check entries and having detachable checks secured thereto, combined with a reduced supplementary folio having pages *a*, *a*[1], adapted to serve as bank entries for additional banks, and having detachable checks secured to it, and having its reverse sides adapted to serve as journal for the main folio pages, substantially as and for the purpose set forth.

No. 44,045. Water Tube Boiler.

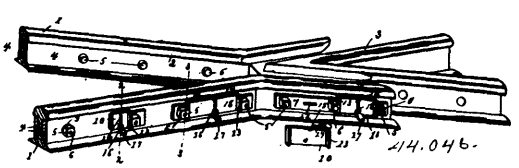
(*Chaudière tubulée.*)



Robert Munroe and Robert Munroe, jr., both of Allegheny, Pennsylvania, U.S.A., 24th August, 1893; 6 years.

Claim.—1st. In a water tube boiler, the combination of the front and rear tube cylinders, the former having four or more and the latter one manhole located therein and adapted to be closed in any suitable manner, tube sheets forming the rear walls of said cylinders and provided with series of orifices parallel in every direction, except vertically, and a series of tubes suitably secured in said orifices and connecting said tube cylinders, and a steam drum connected with said water chambers, and having a series of downwardly projecting tubes, substantially as and for the purpose herein set forth. 2nd. In a water tube boiler, the combination of the front and rear tube cylinders, the former having four or more and the latter one manhole located therein and adapted to be closed in any suitable manner, tube sheets forming the rear walls of said cylinder and provided with series of orifices parallel in every direction, except vertically, and a series of tubes suitably secured in said orifices and connecting said heads, the upper, lower, and extreme side tubes being of greater diameter than the rest and projecting into said heads and suitably secured therein, and a steam drum connected with said water chambers, and having a series of downwardly projecting tubes, substantially as and for the purpose herein set forth. 3rd. A boiler setting consisting of the furnace A, provided with an arch *x*, extending from side to side, the frame above the grate bars, a bridge wall *z*, an arch d^1 above said tubes, terminating a slight distance from the rear ends thereof, and a tile extending from side to side of said furnace its entire length, in combination with the air admission pipes c^1 and c^{11}, substantially as and for the purpose herein described.

No. 44,046. Nut Lock. (*Arrête-écrou.*)

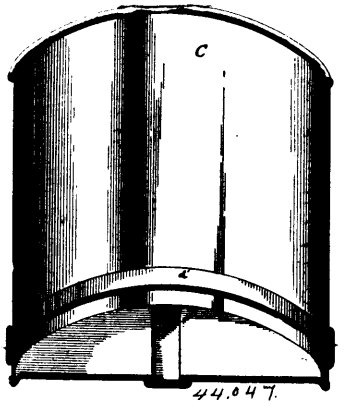


William J. Jones, Pinson, Tennesee, U.S.A., 24th August, 1893; 6 years.

Claim.—1st. In a nut lock, the combination with a stationary plate provided with bolt holes and a slot, of a locking plate provided with a retaining web to engage the slot, and means for engaging the nuts, and a locking lever carried by the locking plate to engage the stationary plate and retain the said web in the slot, substantially as specified. 2nd. In a nut lock, the combination with a stationary plate having bolt holes and a slot, of a locking plate provided with up struck flanges to engage the nuts, and a retaining web to engage

the slot in the stationary plate, a locking lever fulcrumed upon the locking plate and engaging the stationary plate, and studs to engage and hold the free end of the locking lever when the latter is in its locking position, substantially as specified. 3rd. In a nut lock, the combination with a stationary plate provided with a bolt hole and adapted to lie in rear of and be held in place by the nut, and means to support said plate and provide a space in rear thereof, of a locking plate provided with means to engage the nut, and a locking lever fulcrumed upon the locking plate, and provided with a locking arm to engage the upper edge of the statitionary plate and lie in rear thereof to retain the locking plate in its operative position, substantially as specified. 4th. In a nut lock, the combination with the bolt and nut, of a stationary plate provided with an opening to receive said bolt, a sleeve or collar fitted upon the bolt in rear of said plate to provide a space in rear of the plate, a locking plate provided with means to engage the nut which bears upon the outer surface of said stationary plate, and a locking lever fulcrumed upon the locking plate and provided with an arm to engage the rear surface of the stationary plate, substantially as specified.

No. 44,047. Pails, Pans, etc. (*Seau, vase, etc.*)

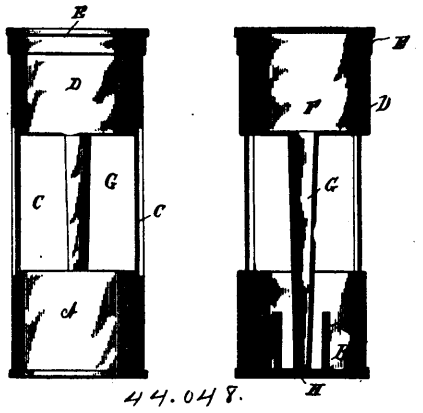


Tristram D. Brown, Canandaigua, New York, U.S.A., 24th August, 1893; 6 years.

Claim.—As an improved article of manufacture, a pan or other vessel having its perpendicular sides provided with a continuous loop or made full and bent to form continuous parallel flanges or creased edges, all in one perpendicular piece, and an intermediate continuous zinc plate or strip in said groove or recess, and having its edges secured by said flanged or creased edges, whereby it is held rigid in said groove or recess, substantially as set forth.

No. 44,048. Disinfecting Apparatus.

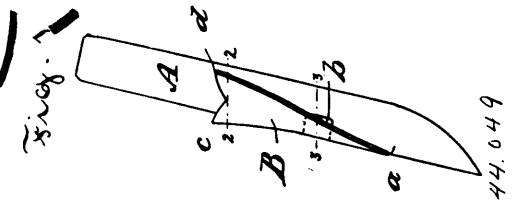
(*Appareil à désinfecter.*)



Charles B. Hyslip, Hornellsville, New York, U.S.A., 24th August, 1893; 6 years.

Claim.—A disinfecting device consisting of a lower receptacle, a casing supported above the same leaving air openings between the two, a supply tank inclosed and supported by the receptacle and provided on its lower side with a tapering discharge tube, an absorbent pad located in the lower receptacle provided with two absorbent vertical wings I I, rising from the said pad at a short distance from both tube and casing and permitting access of air to both sides of said wings, as set forth.

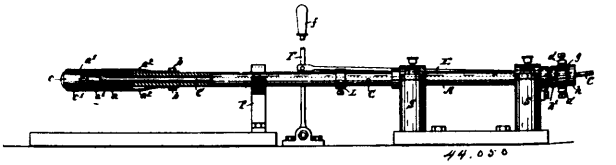
No. 44,049. Plow Colter. (*Coutre de charrue.*)



William Humphrey Perrin, Merrickville, Ontario, Canada, 24th August, 1893; 6 years.

Claim.—The combination with a plow colter of the mold board B having lug *b*, substantially the shape herein shown and described.

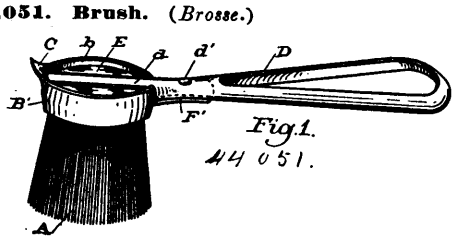
No. 44,050. Apparatus for Manufacturing Metal Tubes. (*Appareil pour la fabrication des tubes en métal.*)



Edmund F. Hartshom, Newark, New Jersey, U.S.A., 24th August, 1893; 6 years.

Claim.—1st. In an apparatus for soldering shade rollers, in combination the tube A supported at one end and near the middle, and adapted to turn in its bearings, provided with the expansible ends *a a*, the rod C having the conical head *c* engaging the expansible ends and means for moving and holding the rod within the tube at any position whereby the ends are caused to expand and are held fixed at any degree of expansion, substantially as described. 2nd. In combination, the tube A adapted to turn in its bearings and provided with the expansible ends *a a*, the rod C having the conical head *c* engaging the expansible ends and the fixed collars *h* h^1, the pivoted arm D engaging at one end with the loose collar g^1 and at the other end with the rod E, and the rod E arranged to be moved by the lever F, substantially as and operating in the manner described.

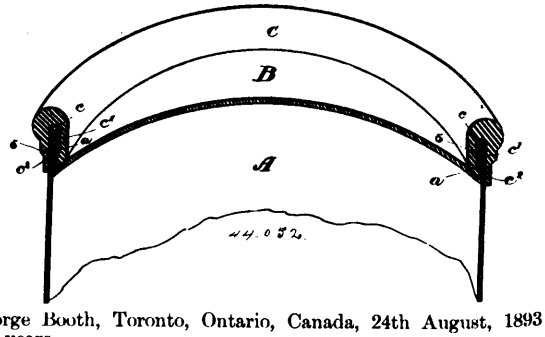
No. 44,051. Brush. (*Brosse.*)



Walter Melius, Albany New York, U.S.A., 24th August, 1893; 6 years.

Claim.—1st. The combination, with a single knot of bristles, of a head band having a lateral extension, a cap placed upon the top of the bristles within the upper edge of the head band, and a handle secured at its shank to the extension of the head band and provided with a forward extension overlapping said cap, substantially as shown and described. 2nd. In a brush, the combination of a compressible head band provided with overlapping arms and an eyelet securing said arms together, substantially as shown and described.

No. 44,052. Range Boiler. (*Chaudière de landier.*)



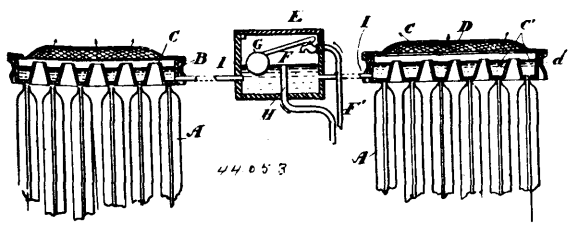
George Booth, Toronto, Ontario, Canada, 24th August, 1893; 6 years.

Claim.—The combination with the cylindrical portion and head connected together by the downwardly turned edge of the cylindri-

cal portion, and the upwardly turned edge of the head portion inserted and soldered within the turned down edge of the cylindrical portion of a malleable iron ring having an annular groove which fits over the jointed vertical edge, and is pressed or swedged against the two sides of the same, as and for the purpose specified.

No. 44,053. Moisture Pan for Radiators.

(*Bassin à eau pour calorifères.*)

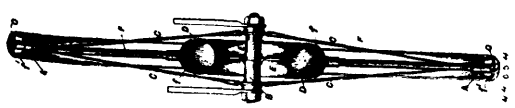


Samuel George Curry, Toronto, Ontario, Canada, 24th August, 1893; 6 years.

Claim.—1st. The combination with the radiator loops, of a moisture pan provided with a series of tapering openings at short distances apart, and from the sides and ends of the pan, so as to form a continuous water space around the openings, as and for the purpose specified. 2nd. The combination with the radiator loops, of tapered openings C, situated directly above the space between the coils, a continuous water space C^1 surrounding the openings, and an open work top D, arranged as and for the purpose specified. 3rd. The combination with two or more radiators provided with moisture pans and tapered openings C, and water space C^1 surrounding the said openings, of the pipes I, water tank E, provided with a ball cock F connected to the pipe F^1, leading from the water supply, float G and overflow pipe H, arranged as and for the purpose specified.

No. 44,054. Wheel for Bicycles, etc.

(*Roue pour bicycles, etc.*)



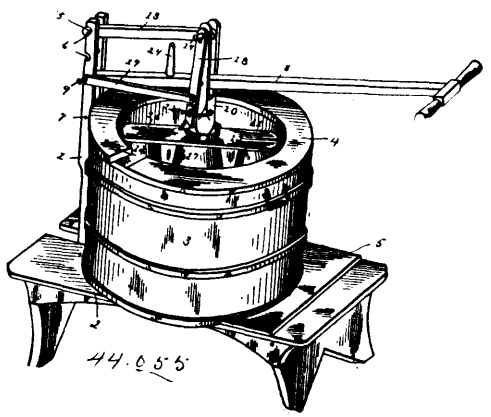
George Washington Smiley and Forest William Dunlap, both of London, England, 24th August, 1893; 6 years.

Claim.—1st. The combination with a wheel, of an elastic cushion situated within the wheel rim and surrounding the hub, a tyre movable in the radial direction independently of the rim, and of spokes guided by the rim whereby the radial thrust is transmitted directly from the said tyre to the elastic cushion independently of the wheel rim, substantially as specified. 2nd. A wheel of the ordinary bicycle type, having an annular elastic cushion supported by or immediately around the hub, an external tyre movable independently of the rim, thrust spokes free to slide and guided by the rim and terminating in segments whereby the radial thrust is transmitted directly from the tire to the elastic cushion without passing through the wheel rim, substantially as specified. 3rd. A wheel of the bicycle type, having an annular tubular inflated cushion supported by or around the hub and between the oppositely splayed tensional spokes, ribs on the external surface of the cushion, shoes embracing such surface between the ribs, thrust spokes connected to the shoes and sliding freely through but guided by the wheel rim, segments (or a continuous rim) attached to the thrust spokes, and a hollow rubber tire encircling and attached to such movable segments or rim, and connected to the wheel rim so as to permit of free play and cause radial thrust to be transmitted directly to the cushion independently of the wheel rim, substantially as specified.

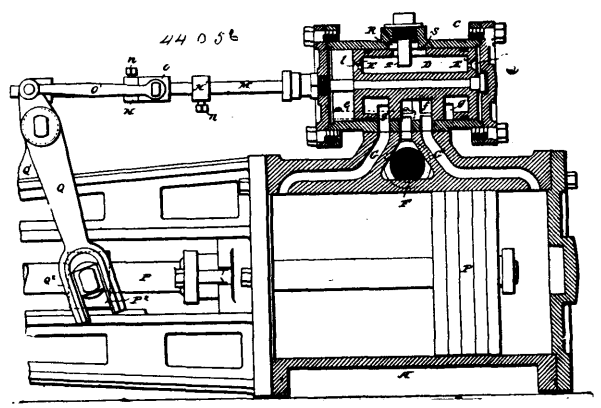
No. 44,055. Washing Machine. (*Machine à blanchir.*)

George E. Bartholomew, Russell, New York, U.S.A., 24th August, 1893; 6 years.

Claim.—1st. In a washing machine, the combination of a standard having its upper portion bifurcated and provided near its upper end with open bearing recesses and near the lower end of the bifurcation with perforations, an operating lever having an upwardly extending arm, a pin arranged in said perforation and fulcruming the lever to the standard, a stem carrying clothes pounders at its lower end, and having its upper portion bifurcated and pivoted to the operating lever at a point intermediate of its ends, a link bar pivoted to the upper end of the stem at its front end and provided at its rear end with journals arranged in the bearing recesses, substantially as described. 2nd. In a washing machine, the combination of a standard, an operating lever fulcrumed on the standard between the ends thereof, a stem pivoted intermediate of its ends to the operating lever and projecting above the latter, a link bar pivoted to the upper end of the stem and journalled on the standard and located above the operating lever, a pounder secured to the lower end of the standard, a rotatable bar mounted on the lower end of the stem, and carrying clothes pounders and provided with an annular ratchet, an oscillating lever fulcrumed at its upper end on the stem at the upper end thereof and provided at its lower end with a tooth arranged to engage the annular ratchet, and a bar having one end pivoted to the oscillating lever and its other end pivoted to the standard, substantially as described.



No. 44,056. Steam Engine. (*Machine à vapeur.*)



William Alfred Dewett, Brooklyn, New York, U.S.A., 24th August, 1893; 6 years.

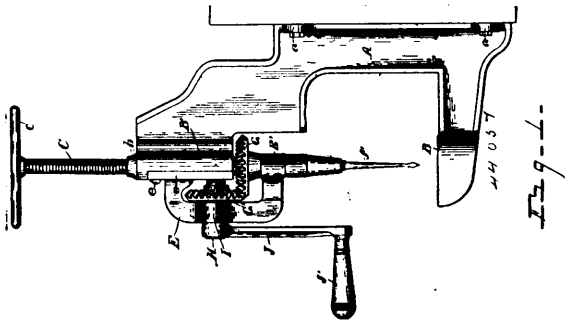
Claim.—1st. In a direct acting engine, the combination, with the steam cylinder, of a steam chest mounted thereon, a valve having a combined oscillatory and reciprocatory motion in the chest, a spindle connected with the valve, a differential lever connected to be operated by the engine piston to reciprocate the valve, and means connected with the valve and steam chest to oscillate the valve, substantially as described. 2nd. In a direct acting engine, the combination with the steam cylinder, of a steam chest mounted thereon, a valve fitting the chest, connections between the valve and the engine piston to partially reciprocate the valve, ports in the steam chest, controlled by the valve to allow the valve to be further reciprocated by the steam and mechanical devices connecting the steam chest and valve for oscillating the valve, substantially as described. 3rd. In a direct acting engine, the combination, with the steam cylinder and steam chest, of a valve having a longitudinal movement and an oscillatory movement, and means for oscillating the valve during the latter portion of its longitudinal movement, substantially as described. 4th. In a direct acting engine, the combination, with the steam cylinder and steam chest, of a cylindrical valve having ports on its under side corresponding with the main piston ports in the cylinder, an opening in its side to receive the steam and an opening in its top, and a pin mounted in the steam chest and projecting into said top opening, substantially as described. 5th. In a direct acting engine, the combination, with the steam cylinder, of a steam chest mounted thereon, a cylindrical valve having closed ends, mechanical connections between the valve and the engine piston for partially reciprocating the valve, steam passages in the chest controlled by the valve to complete its reciprocation, and connections between the valve and steam chest for oscillating the valve, substantially as described.

No. 44,057. Hand Drill. (*Foret à main.*)

Aron Kerry, Marysville, and Frank J. Best, Detroit, both in Michigan, U.S.A., 25th August, 1893; 6 years.

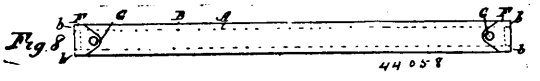
Claim.—1st. In a drill press, in combination with a stationary support, having a guideway therein, the drill head mounted in said

guideway and carrying the driving mechanism and drill spindle, the feed screw threaded in the stationary support and having en-



gagement with the drill head, whereby said head may be reciprocated in said guideway, substantially as specified. 2nd. In a drill press, in combination, the supporting frame having the guideway therein, the work table formed integral with said frame, the rectangular head mounted to slide in the said guideway, the feed screw threaded in the frame and having a swivelled connection with the sliding head, the right angled shafts journalled in said head and being geared together, and means for driving said shafts, substantially as specified. 3rd. In a drilling tool, in combination with the supporting frame, having an aperture therein, the drill head, mounted in said aperture, the angular arm connected at one end to said head, the shafts journalled in said arm and entering said head at right angles thereto, the gear wheels mounted on said shafts, so as to mesh with each other, and having hubs thereon, that engage with said arm to hold said shafts from disengagement with the head, substantially as specified.

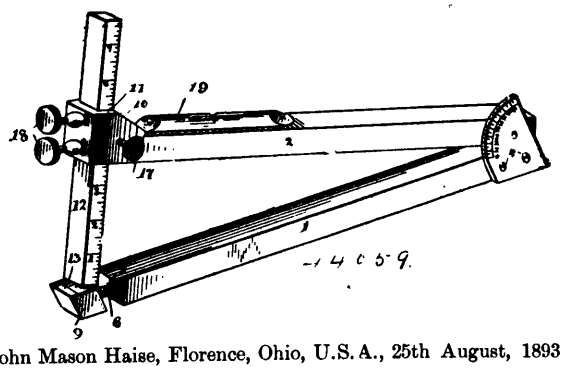
No. 44,058. Dress Stay. (*Busc de corset.*)



George David Hawkins, Hamilton, Ontario, Canada, 25th August, 1893; 6 years.

Claim.—1st. In a dress stay, formed with a steel flexible strip, covered with cloth, and water proof paper on one side, and cut shaped at the ends, leaving two extended ends of paper and cloth projecting past the end of the metal strip, and the extreme ends covered with a cloth tip secured to the stay by an eyelet passed through a hole in the solid part of the steel strip, covering the tip, substantially as and for the purpose specified. 2nd. A dress stay, formed of a steel metal strip A, covered with cloth B, waterproof paper C, pasted together, the ends *b*, *b*, of cloth and paper and a cloth tip F, covering the ends secured by an eyelet G (or its equivalent) substantially as and for the purpose specified.

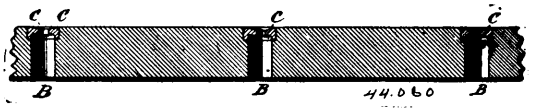
No. 44,059. Grade Measure. (*Mesure de grade.*)



John Mason Haise, Florence, Ohio, U.S.A., 25th August, 1893; 6 years.

Claim—1st. In an instrument of the class described, the combination, with the two members or bars hinged together at their rear adjacent corners, the lower member being extensible, of a gage plate of quadrant shape having degrees of a circle indicated thereon, a gage bar connecting the outer ends of the two members, and means for locking the bar, substantially as specified. 2nd. In an instrument of the class described, the combination with the opposite members, the upper one of which is provided with a slot or opening and the lower one with a longitudinal bore, and a hinge connecting the rear adjacent corners of said members, of a graduated gage-bar mounted in the bore of the lower member and a graduated bar mounted in the slot of the upper member and adjustable therein, the two bars having their meeting ends loosely connected, substantially as specified. 3rd. In an instrument of the class described, the combination with the opposite members hinged together at their adjacent rear corners, the upper member having a slot and the lower member longitudinally bored, of gage bars mounted in the slot and in the bore, and hinged at their adjacent ends, and a coiled spring interposed between the lower gage bar and the end of the bore, substantially as specified. 4th. In an instrument of the class described, the combination with the opposite members hinged together at their adjacent corners, the lower member being bored and the upper member terminating in a slotted box, of a gage bar mounted in the slot of the box, set screws mounted in the box for binding upon the gage bar, a shaft mounted transversely in the box, provided at its centre with toothed wheel for engaging teeth formed upon the gage bar, and at its ends terminating in milled nuts, a gage bar mounted in the bore of the lower member and terminating at its outer end in a head flush with the outer surface of said lower member, and a hinge connecting the upper surface of the said head with the lower end of the gage bar of the upper member, substantially as specified. 5th. An instrument of the class described, the same consisting of two bars of the same length, hinged at their rear extremities, the upper bar being provided with a spirit level, a loop or box at the free end of the upper member, a set screw in said loop or box, and a rigid strip, bearing a scale of inches, flexibly connected at its lower end to the free end of the lower bar, passing through the loop or box, and impinged upon by the screw, substantially as specified. 6th. An instrument of the class described, the same consisting of two bars of the same length, hinged at their rear extremities, the upper bar being provided with a spirit level, a loop or box at the free end of the upper member, a set screw in said loop or box, and a rigid strip, bearing a scale of inches, flexibly connected at its lower end to the free end of an extensible bar which has bearings in the lower bar, passing through the loop or box, and impinged upon the screws, substantially as specified.

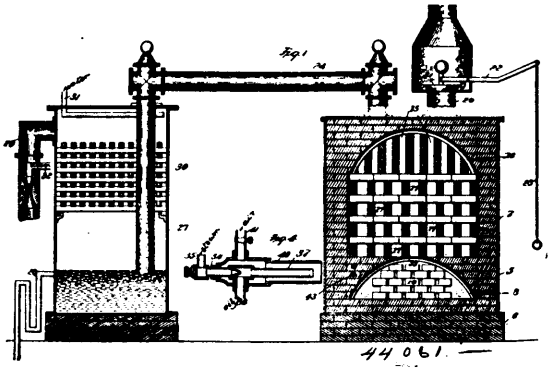
No. 44,060. Floor Drainer. (*Egouttoir de plancher.*)



Emmett Coon, Ann Arbor, Michigan, U.S.A., 25th August, 1893; years.

Claim.—1st. The improvement in floors herein shown, comprising perforated metallic drainers set in shouldered holes bored in said floor, substantially as described. 2nd. As a new article of manufacture, the circular metallic drainer herein set forth, having a concave top, and a hole having its bottom of greater diameter than its top, substantially as described. 3rd. As an improved article of manufacture, the drainer herein shown and described, consisting of a round disc with substantially vertical edges, a concave top, a central hole whose bottom is larger than its top, and the bottom of said disc being cupped out to form a rim at the outer edge and with the lower edge of the wall of the hole lower than the body of the disc, all substantially as described and shown.

No. 44,061. Apparatus for Manufacturing Gas.
(*Appareil pour la fabrication du gaz.*)

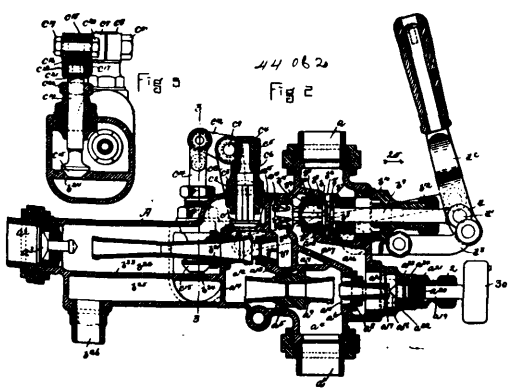


Stephen Warne Van Syckel, Newark, New Jersey, U.S.A., 25th August, 1893; 6 years.

Claim.—1st. A gas generator, provided at its base with combustion chamber having a filling of refractory material, a series of super-posed sets of horizontal multiple flues communicating with the combustion chambers, the members of each set being arranged side by side, and opening at their ends into a cross flue which in turn communicates with the proximate ends of the next succeeding set, a super-heater composed of a set of multiple flues having flue walls of varying heights surmounted by an arch, and oil and steam supply pipes entering the combustion chamber, substantially as described. 2nd. A gas generator, provided at its base with a combustion chamber having a filling of refractory material, a series of super-posed sets of multiple horizontal flues, the flooring between

each set being made up of single courses of fire brick arranged between the floorings and spaced apart to form the flues, cross flues at alternately opposite ends of the multiple horizontal flues, thereby connecting the sets in zigzag order, a super-heater composed of a set of multiple flues separated from each other by fire brick walls of varying heights surmounted by an arch, and oil and steam supply pipes entering the combustion chamber, substantially as described. 3rd. A gas generator, provided at its base with a combustion chamber surmounted by an arch and having a filling of refractory material, a steam pipe having a portion of its length embedded in the generator above said arch so as to be subjected to heat therefrom but protected from the products of combustion and having a branch extending along in front of the generator and depending pipes from said branch, oil injector burners entering the combustion chamber and supplied with steam by the depending pipes, an oil pipe for supplying oil to said injector burners, super-posed sets of multiple flues communicating with the combustion chamber and connected in zigzag order, and a super-heater composed of a set of multiple flues having flue walls of varying height, surmounted by an arch, substantially as described. 4th. A gas generator, comprising a basil combustion chamber surmounted by an arch and containing refractory material, a super-posed series of multiple flues said sets being connected in zigzag order above said arch, a superheater composed of multiple flues of varying height surmounted by an arch, and a metallic casing surrounding and enclosing the generator body, substantially as described. 5th. In a gas generator, a fixing chamber consisting of multiple horizontal flues arranged above each other in zigzag order, and a super-posed set of flues of varying heights supported by the lower flues, and surmounted by an arch, substantially as described. 6th. In a gas generator, a fixing chamber consisting of sets of multiple horizontal flues arranged above each other in zigzag order and communicating by means of single cross flues, and a super-posed set of flues and varying heights supported by the lower flues, and surmounted by an arch, substantially as described.

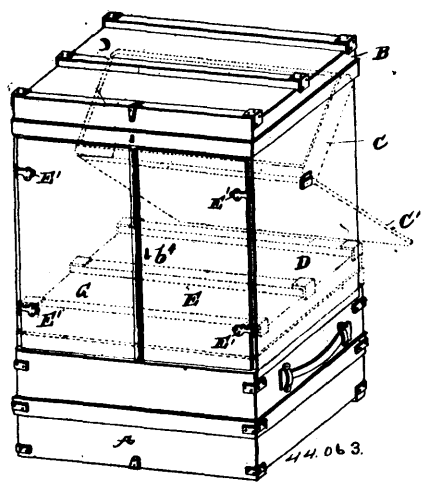
No. 44,062. Inspirator. (*Inspirateur.*)



William Robert Park, Taunton, and Belvin Thomas Williston, Summerville, both of Massachusetts, U.S.A., 25th August, 1893; 6 years.

Claim.—1st. In a combined lifting and forcing injector, a main casing provided with a chamber intermediate of the steam and water inlets, and the overflow chamber of the forcer, and into which the lifter discharges, and from which the forcer is supplied with water, an overflow port from said intermediate chamber to the overflow chamber of the forcer, and an automatically operating valve controlling said port and located on the outside thereof, the said valve and its seat being located above the inlet end of the forcer combining tube, whereby the forcer combining tube will be flooded with water in starting the apparatus, substantially as described and shown. 2nd. In an injector, provided with a lifter and forcer, in which the lifter delivers water to the forcer, a port opening from the passage or chamber, into which the lifter discharges into the overflow chamber of the forcer, a valve which automatically opens and closes said port, and is located on the outside of said chamber, a steam admission valve and a final overflow valve, and devices connecting them with an operating lever, whereby the final overflow valve shall be gradually closed, as the steam admission valve is opened, and the overflow from the lifter shall be automatically controlled, substantially as shown and described. 3rd. In a combined lifting and forcing injector, a main casing A, provided with the steam inlet a, and water inlet a^1, and outlet a^2, partitions a^5, a^6, a^7, within the casing, forming a chamber a^4, communicating with the water inlet, partitions a^{14}, a^{15}, a^{13}, forming the chamber a^{12}, partitions a^{27}, a^{28}, forming the lifter steam inlet passage a^{26}, the partitions b^{16}, forming with the partition a^{13}, the forcer steam inlet passage b^{17}, the partition b^{23}, forming with the casing A, the overflow chamber b^{22}, and the final overflow passage b^{25}, the valve b^{15}, controlling admission of steam to the passage b^{17}, the valve b, and the auxiliary valve b^4, controlling admission of steam to the passage a^{26}, the lifter steam jet tube communicating with the passage a^{26}, and with the chamber a^4, the lifter combining tube extended through the partition a^5, and having its inlet end in the chamber a^4, and its outlet end in the chamber a^{12}, the forcer steam jet tube extended through the partition a^{13} and connecting the forcer steam inlet passage b^{17} with the chamber a^{12} the forcer combining tube extended through the partition a^{14}, and having its inlet end in the chamber a^{12}, and its outlet or discharge, end extended into the overflow chamber b^{22}, an overflow port c, for the chamber a^{12}, a valve c^1, controlling said port, located outside the chamber a^{13}, and having its stem extended into a sleeve c^3, a final overflow port b^{24}, in the partition b^{23}, a valve to control said final overflow port, an operating lever connected to the steam valves, and mechanism connecting the final overflow valve with the said lever, substantially as described. 4th. In a combined lifting and forcing injector, a main casing, a sleeve c^3, detachably secured to said casing, an automatically operated valve c^1, having its stem c^2, extended into said sleeve, a final overflow valve c^{15}, having its stem extended through the main casing, a collar or ring mounted on the said sleeve and provided with ears c^7, c^8, a pin or rod extended through said ears, an elbow lever mounted on said pin, arms c^{16}, c^{17}, pivotally secured to one arm of the said elbow lever, hubs c^{21}, c^{22} on the inner side of the said arms extended into sockets in the stem of the final overflow valve, and a pin c^{23} secured to one of the said arms, and extended through the hole in the valve stem of the final overflow valve, and into a hole or socket in the hub on the other of said arms, substantially as described. 5th. In an injector, a piston valve for the admission of steam, provided with notches or serrations, as b^{19}, substantially as and for the purpose specified.

No. 44,063. Trunk. (*Coffre.*)



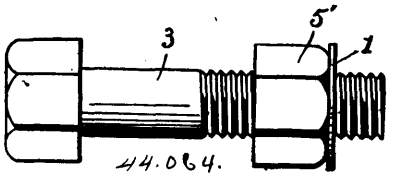
Christian Humader, St. Joseph, Missouri, U.S.A., 25th August, 1893; 6 years.

Claim.—1st. The combination with the trunk body, of leaves hinged together and to the ends thereof, means to support the free end of said leaves in the trunk, means to connect the leaf to the cover, of the cover, a tray and leaf hinged together and to the cover and means to connect said leaf to the trunk body, substantially as described. 2nd. In a combined trunk and wardrobe, the combination with the trunk body, the swing pivot hinge secured to one end of the same, leaves hinged together in series, one series of which is secured to said hinge while the other series is hinged to the opposite side of the trunk, means to support the free ends of said leaves when folded in the trunk, and means to connect said leaves to the cover, of a cover provided with a tray hinged thereto, a leaf hinged to the said tray, means to connect said leaves to the trunk body, substantially as described. 3rd. In a combined trunk or wardrobe, the combination with the trunk body, of a series of leaves arranged in pairs and hinged together and to the opposite ends of said trunk, means to support the free ends of said leaves, means to connect the leaves to the cover, of the cover, the tray and leaf hinged together and to said cover, and means to connect said leaf to the trunk body, substantially as described. 4th. The combination with a trunk, provided with leaves hinged together and to the trunk, and adapted to fold therein, means to support the free ends of said leaves, of the cover provided with a tray and leaf hinged together and to the cover, the pivotal bolts and catches C^4 and B^5, secured to the tray and cover, and a suitable catch to hold the leaf to the bottom of the tray, substantially as described. 5th. The combination with a trunk body provided with a U-shaped hinge, a series of leaves connected to the said hinge, another series of leaves hinged to the opposite side of said trunk, the combined catch and hinge connected to said series of leaves, means to support the free ends of said leaves when folded in the trunk, of the cover provided with hook hinges, a tray and leaf hinged together and to said cover, the pivotal bolts c^4 and catches B^5, B^6, c^3 and c^8, connected respectively to the cover, tray and leaf, substantially as described. 6th. In a combined trunk and wardrobe, the combination with the trunk body, of two pairs of leaves hinged to the trunk and adapted to fold and form

compartments therein, and when folded to form the sides and front of the wardrobe, of the cover connected to the trunk body by hook hinges, and provided with a tray and leaf hinged together and to said cover, and adapted when unfolded to form the top and back of a wardrobe, substantially as described.

No. 44,064. Nut Lock Washer.

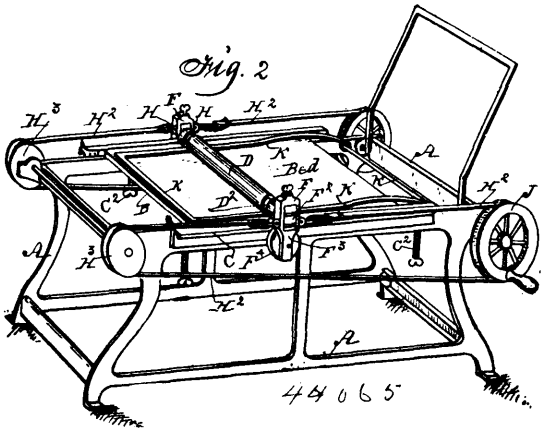
(*Rondelles pour arrête-écrous.*)



Arthur Lorenzo Mills, Toledo, Ohio, U.S.A., 25th August, 1893; 6 years.

Claim.—A nut lock washer having a central orifice normally smaller than the bolt, expanded by dishing the same to fit the bolt, the wall of the orifice of the washer being formed with an inclination coinciding with the pitch of the thread of the bolt when the washer is flattened.

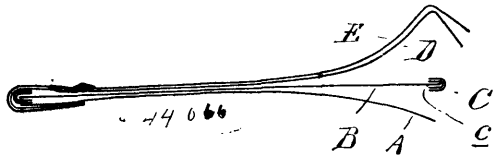
No. 44,065. Printing Press. (*Presse d'imprimerie.*)



Augustus W. Vaughn, Stuart, Iowa, U.S.A., 25th August, 1893; 6 years.

Claim.—1st. In combination, with the bed of a printing press, a tympan frame having its parallel side portions formed of curved elastic material, and the lower end of the tympan pivotally connected with a part of the press, to operate in the manner set forth for the purposes stated. 2nd. In a printing press, in combination, with a bed and a supporting frame, tracks adjustably connected with the sides of the frame, a cylinder carried in bearings fixed to said tracks, means for securing an adjustable pressure between the cylinder and the bed, means for reciprocating the cylinder over the bed, and a tympan frame having elastic curved sides pivotally connected with the said tracks, for the purposes stated. 3rd. A hand printing press consisting of a supporting frame A, a bed B, adjustable tracks C, a roller D, frames F, the adjustable blocks F^2, portions F^3, projecting from the frames, having guide wheels F^4 journalled therein, a connecting bar H, a belt H^2, a belt wheel H^3, and a crank wheel J adapted to admit the belt, and the tympan K, constructed and combined, substantially as described, to operate in the manner set forth for the purposes stated.

No. 44,066. Dress Stay. (*Baleines de robes.*)

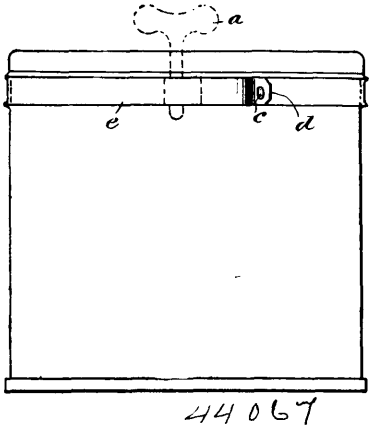


Garrett Smith Brown, Detroit, Michigan, U.S.A., 25th August, 1893; 6 years.

Claim.—1st. In a dress stay, the combination of a body, a covering connected thereto, a non-metallic flexible top folded over the end of the body and connected thereon, and a covering for the body having its ends extending around the end of the body and tip and cemented to the opposite side, substantially as described. 2nd. In a dress stay, the combination of a body or steel a covering consisting of a back and front strip or greater width than the steel cemented thereto, and having their projecting edges cemented together, a non-metallic flexible tip, folded over the end of the steel and cemented thereto being wider than the steel, and end extensions of the covering passing around the end of the steel and tip, being cemented to the opposite side, substantially as described.

No. 44,067. Can Opening Device.

(*Machine à ouvrir les boîtes métalliques.*)



Henry Woodley, Montreal, Quebec, Canada, 25th August, 1893; 6 years.

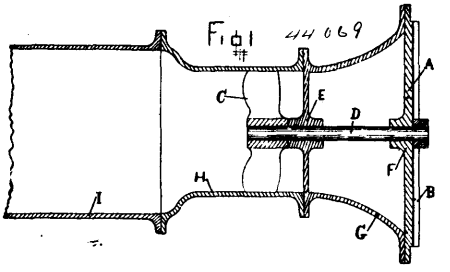
Claim.—1st. A can opening device, consisting of a key or instrument having a plain stem with finger projection from one side thereof adapted to enter a perforation in the free projecting tongue portion and close to the end of the removable connecting strip of a can, as set forth. 2nd. In a can, the combination, with the free projecting tongue portion, of its removable connecting strip, of a key or instrument having a plain stem with finger projection from one side thereof adapted to engage in the perforation in and close to the end of said tongue portion, as set forth.

No. 44,068. Soap. (*Savon.*)

Jacques Grünwald, Berlin, Germany, 25th August, 1893; 6 years.

Claim.—The manufacture of hard, transparent soap by treatment of starch dissolved in a weak solution of magnesium chloride with (1) potassium or sodium lye, or a mixture of potash or soda, and hydrate of lime, then (2) glycerine, and then (3) solutions of borax and potash, in the proportions substantially described, and then incorporating the resultant compound with ordinary soap.

No. 44,069. Suction Pipe. (*Tuyau d'aspiration.*)



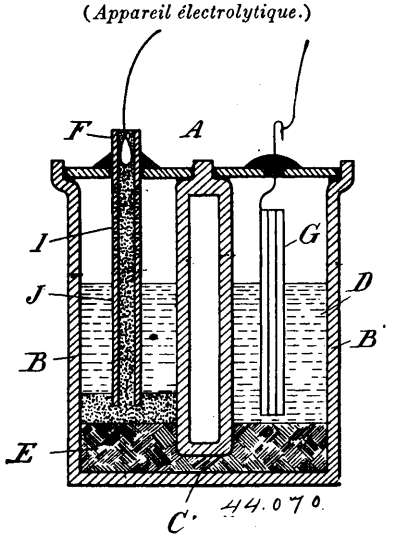
Ezra Frick Landis, Lancaster, Pennsylvania, U.S.A., 25th August, 1893; 6 years.

Claim.—1st. A suction pipe or waterway, having secured thereto a neck H, a funnel G, bolted or otherwise secured to said neck, and a screen on either or both sides of the funnel, as and for the purposes set forth. 2nd. A suction pipe or waterway, having neck H, funnel G, and screen A, rotating cleaner arms B, B, fixed upon a shaft D, and rotating in close contact to the true face of the screen by means of a propeller or other suitable devices placed within said suction pipe, and receiving its motion by the inflow of water or other liquids, as described and for the purposes set forth. 3rd. In a suction pipe or waterway, the combination of the cleaner arms, rotating in close contact to the true face of the screen, with a propeller placed within said suction pipe and rotating said cleaner arms, as set forth and described. 4th. In a suction pipe or waterway, the combination of a screen with a funnel G, secured to a neck H, as described and set forth. 5th. In a suction pipe or waterway, the combination of the cleaner arms, rotated by a propellor, and of the screen secured to the funnel, as described and set forth. 6th. In a suction pipe or waterway, the combination of the funnel G, secured to the neck H, having formed therein the bearing E, screen A, secured to said funnel and having bearing F, cast integral with the screen, with the cleaner arms secured to shaft D, supported in

bearings E, F, and rotated by a propeller placed within the suction pipe, and receiving its motion by the inflow of water or other liquids, substantially as and for the purposes set forth.

No. 44,070. Electrolytic Apparatus.

(*Appareil électrolytique.*)

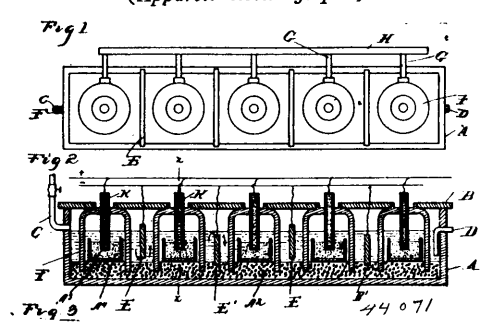


Thomas Craney, Bay City, Michigan, U.S.A., 25th August, 1893; 6 years.

Claim.—1st. In an electrolytic apparatus containing an anode in a separate compartment communicating with the cathode compartment through an electrolytic diaphragm, an anode consisting of a body of carbon in a protective casing, and a body of carbon in the bottom portion of the anode compartment and inclosing the lower end of said casing. 2nd. In an electrolytic cell, a carbon anode comprising a body of carbon contained in an outer protective casing, said casing being provided with perforations in its upper portion in such position as to be above the height of the liquid in the cell.

No. 44,071. Electrolytic Apparatus.

(*Appareil électrolytique.*)



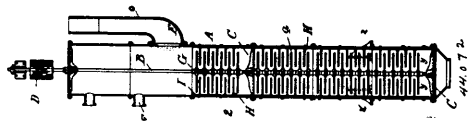
Thomas Craney, Bay City, Michigan, U.S.A., 25th August, 1893; 6 years.

Claim.—1st. The combination and arrangement in an electrolytic apparatus, of a vessel provided with inlet and discharge connections for the liquid, a porous medium contained in the bottom of the vessel, anodes and cathodes contained in chambers formed in said vessel, and partitions extending alternately above and below the liquid and separating the cathode chambers. 2nd. The combination and arrangement in an electrolytic apparatus, of a vessel containing the liquid to be electrolized and provided with inlet and outlet connections, a porous medium contained in the bottom of the vessel, partitions dividing the vessel above the porous medium into separate chambers containing the cathodes and communicating with each other alternately at the top and bottom, and anodes contained in separate chambers communicating with the cathodes through the porous medium. 3rd. The combination and arrangement in an electrolytic apparatus, of a vessel containing a porous medium at the bottom thereof, anodes and cathodes inclosed in separate chambers communicating with each through the porous medium, and partitions separating the cathode chambers, said cathode chambers communicating alternately at the top and bottom.

No. 44,072. Salt Purifier. (*Appareil pour purifier le sel.*)

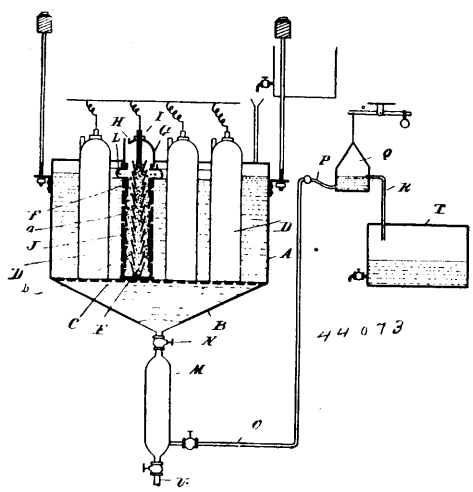
Thomas Craney, Bay City, Michigan, U.S.A., 25th August, 1893; 6 years.

Claim.—1st. In an apparatus for purifying salt, the combination of a vessel containing a body of washing fluid, and provided with an overflow, a supply for the washing fluid, communicating with the vessel for maintaining a supply of fresh washing fluid and circulating the same upward through the vessel and mechanical feed devices for feeding the salt into the top of the vessel, mechanical devices for removing the salt from the bottom of the vessel and a stirring device in the vessel, substantially as described. 2nd. In apparatus for purifying salt, the combination of the vessel adapted to contain a body of the washing fluid, an overflow for the same near the top of the vessel, a settling chamber at the bottom of the vessel, an inclined trunk communicating with said settling chamber and extending above the level of the fluid in the vessel, a conveyor in said trunk for removing the salt from the settling chamber, a feed connection for the washing fluid into said vessel, means for feeding the salt into the top of the vessel, and an agitator submerged in the body of the washing fluid in the vessel, substantially as described. 3rd. In an apparatus for purifying salt, the combination of the cylindrical vessel, the agitator having arms secured to a revolving shaft and intermediate fixed arms secured to the walls of the vessel, the settling chamber J at the bottom of the vessel, the inclined conveyor trunk K communicating therewith and containing the conveyor L, the inlet P into said conveyor trunk for the washing fluid, the overflow F from the vessel, and the feed for introducing the salt into the top of the vessel, all arranged to operate, substantially as described.



No. 44,073. Apparatus for Electrolysis of Salt.

(*Appareil pour l'électrolyse du sel.*)



Thomas Craney, Bay City, Michigan, U.S.A., 25th August, 1893; 6 years.

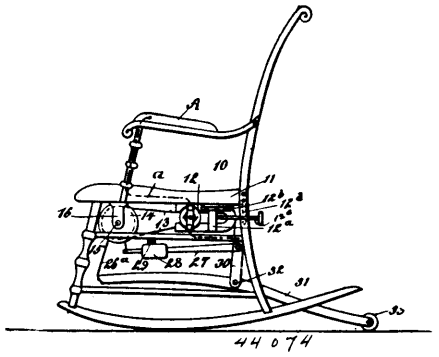
Claim.—1st. The combination, with an electrolytic cell, of a receiver connected to the bottom of the cell by a valve controlled connection and means for discharging the liquid from the receiver, substantially as described. 2nd. The combination in an electrolytic cell, of the tank containing the electrolyte, the receiver connected to the bottom thereof, the overflow pipe from the receiver, a weighing receptacle flexibly connected to said overflow, and an overflow from said receptacle, substantially as described. 3rd. The combination in an electrolytic cell, of a tank containing the electrolyte, the perforated false bottom or grating, the receiver connected to the bottom thereof, the overflow pipe from the receiver extending up to the height of the electrolyte in the tank, the weighing receptacle flexibly connected to said overflow pipe, and the overflow from the receptacle, substantially as described. 4th. The combination, with an electrolytic cell of an overflow pipe, through which the liquid is discharged from the bottom of the cell, and a weighing receptacle flexibly connected thereto, and into which said overflow pipe discharges, substantially as described.

No. 44,074. Electrical Attachments for Rocking Chairs. (*Appareil électrique pour fauteuil à bascule.*)

Charles E. Hartelius, Bay Ridge, New York, U.S.A., 25th August, 1893; 6 years.

Claim.—1st. The combination, with a rocking chair, of electrodes or contacts carried by the chair, a dynamo arranged in circuit with said electrodes or contacts, and mechanism actuated by the movements of the chair for operating the dynamo, substantially as described. 2nd. The combination, with a rocking chair, of contacts or electrodes secured thereto, a dynamo carried by the chair and

connected with the electrodes or contacts, a lever fulcrumed beneath the chair and having one end in contact with the floor, and an oper-



ative driving connection between the lever and the dynamo whereby the movement of the chair will operate the latter, substantially as described. 3rd. The combination, with a rocking chair, of electrodes or contacts secured thereto, a dynamo carried by the chair and connected with the electrodes or contacts, a lever fulcrumed beneath the chair and having at one end a roller which runs upon the floor, and an operative driving connection between one end of the lever and the dynamo, whereby the movement of the chair will operate the dynamo, substantially as described. 4th. The combination, with the dynamo, of a slidable, adjustable keeper connecting the pole pieces of the field and adapted to control the current generated by the machine, substantially as described.

No. 44,075. Art of Refining Nickel and Copper Matte.

(*Art de raffinage de nickel et de matte de cuivre.*)

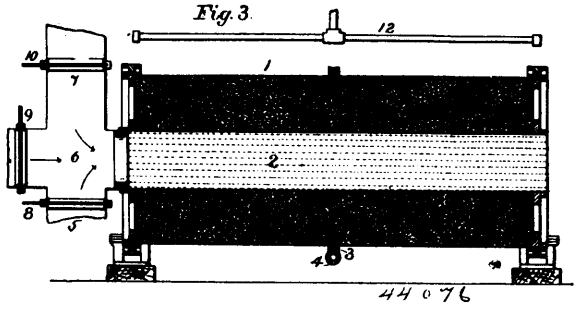
Charles Gordon Richardson, Toronto, Ontario, Canada, 25th August, 1893; 6 years.

Claim.—1st. In a mixture of iron, nickel and copper oxides, the conversion of the same by means of dry hydrochloric acid gas, superheated or otherwise, into ferric chloride and nickel and copper chlorides, and then separating the resulting chlorides by fractional distillation or sublimation, preferably in an atmosphere of hydrochloric acid gas or any neutral gas, substantially as described. 2nd. In a mixture of iron and nickel oxides, the conversion of the same into chlorides by the action of dry hydrochloric acid gas at temperatures below the volatilizing or sublimatizing point of nickel chloride and the simultaneous distillation and separation of the ferric chloride as formed, substantially as described. 3rd. In a mixture of nickel and copper oxides, the conversion of the same into chlorides by the action of dry hydrochloric acid gas and then raising the temperature to a point below the point of volatility of copper chlorides and above the volatilizing point of nickel chloride and the separation of the two chlorides by fractional distillation, substantially as described. 4th. In a mixture of nickel and copper chlorides, heating the same to a point below the volatilizing or subliming point of copper chloride and above the volatilizing or subliming point of nickel chloride and the separation of the two chlorides by means of fractional distillation or sublimation preferably in an atmosphere of hydrochloric acid gas or any neutral air, substantially as described. 5th. In a mixture of nickel and iron chlorides, the separation of the same by means of fractional distillation or sublimation in an atmosphere of hydrochloric acid gas or any neutral gas, substantially as described. 6th. In a mixture of iron, nickel and copper chlorides, their separation from each other by means of fractional distillation or sublimation in an atmosphere of hydrochloric acid gas or other neutral gas, substantially as described.

No. 44,076. Process of Malting.

(*Procédé de maltage.*)

Fig. 3.



James A. Tilden, Hyde Park, Massachusetts, U.S.A., 25th August, 1893; 6 years.

Claim.—1st. That improvement in the art of malting which consists of withering the previously steeped, couched and germinated grain by passing a current of non-saturated air through it, and whitening the same by passing a current of air mixed with a limited amount of bleaching agent through it in the same apparatus, substantially as set forth and described. 2nd. That improvement in the art of malting which consists of whitening the previously steeped, couched and germinated grain by passing a current of air mixed with a limited amount of bleaching agent through the same, and curing the grain by passing a dry hot air through it under increasing dryness and temperature to practically dry air preferably at a temperature of 180 to 220 degrees F. in the same appartus, substantially as set forth and described. 3rd. That improvement in the art of malting which consists of withering the previously steeped, couched and germinated grain by passing a current of non-saturated air through it, whitening the same by passing a current of air mixed with a limited amount of bleaching agent through it, and curing the grain by passing a dry hot air through the same under increasing dryness and temperature to practically dry air preferably at a temperature of 180 to 220 degrees F., producing thereby a withering, bleaching and curing of the grain in a single apparatus, substantially as set forth and described. 4th. That improvement in the art of malting consists in the stage of germination of subjecting the previously steeped and couched grain while intermittingly agitating the same, to the influence of air saturated with moisture at a temperature of from 55 to 70 degrees F., withering the grain by passing a current of non-saturated air through it, and whitening the same by passing a current of air mixed with a limited amount of bleaching agent through it, producing thereby a continuous germination, withering and whitening of the grain by variable conditions in a single apparatus, substantially as set forth and described. 5th. That improvement in the art of malting which consists in the stage of germination of subjecting the previously steeped and couched grain while intermittingly agitating the same to the influence of air saturated with moisture at a temperature of 55 to 70 degrees F., withering the grain by passing a current of non-saturated air through it, and curing the same by passing a dry hot air through it while under increased intermittent agitation, producing thereby a continuous germination, withering and curing of the grain by variable conditions in a single apparatus, substantially as set forth and described. 6th. That improvement in the art of malting which consists, in the stage of germination, of subjecting the previously steeped and couched grain while intermittingly agitating the same, to the influence of air saturated with moisture at a temperature of from 55 to 70 degrees F, withering the grain by passing a current of non-saturated air through it, and curing the grain by passing a dry, hot air through it under increasing temperature and dryness from and above the temperature and humidity used in withering to a practically dry air preferably at a temperature of from 180 to 220 degrees F, and under increased intermittent agitation, producing thereby a continuous germination, withering and curing of the grain by variable conditions in a single apparatus, substantially as set forth and described. 7th. That improvement in the art of malting which consists, in the stage of germination, of subjecting the previously steeped and couched grain while intermittingly agitating the same, to the influence of air saturated with moisture at a temperature of from 55 to 70 degrees F, withering the grain by passing a current of non-saturated air through it, whitening the same by passing a current of air mixed with a limited amount of bleaching agent through it, and curing the grain by passing dry, hot air through it, while under increased intermittent agitation, producing thereby continuous germination, withering, whitening and curing of the grain by variable conditions in a single apparatus, substantially as set forth and described. 8th. That improvement in the art of malting which consists, in the stage of germination, of subjecting the previously steeped and couched grain while intermittingly agitating the same, to the influence of air saturated with moisture at a temperature of from 55 to 70 degrees F, withering the grain by passing a current of non-saturated air through it, whitening the same by passing a current of air mixed with a limited amount of bleaching agent through it, and curing the grain by passing a dry, hot air through it under increasing temperature and dryness from and above the temperature and humidity used in withering to a practically dry air preferably at a temperature of from 180 to 220 degrees F., while under increased intermittent agitation, producing thereby a continuous germination, withering, whitening and curing of the grain by variable conditions in a single apparatus, substantially as set forth and described. 9th. That improvement in the art of malting which consists, in the stage of germination, of subjecting the previously steeped and couched grain while intermittingly agitating the same, to the influence of air saturated with moisture at a temperature of from 55 to 70 degrees F., withering the grain by passing a current of non-saturated air through it, whitening the same by passing a current of air mixed with a limited amount of bleaching agent through it, and curing the grain by passing a dry, hot air through it under increasing temperature and dryness from and above the temperature and humidity used in withering to a practically dry air preferably at a temperature of from 180 to 220 degrees F., while under increased intermittent agitation, producing thereby a continuous germination, withering, whitening and curing of the grain by variable conditions in a single apparatus, substantially as set forth and described. 10th. The improvement in the art of malting, which consists in couching the previously steeped grain by holding it in bulk in a quiescent state to develop spontaneous heat, germinating the same by intermittingly agitating the grain while subjecting it to the influence of air

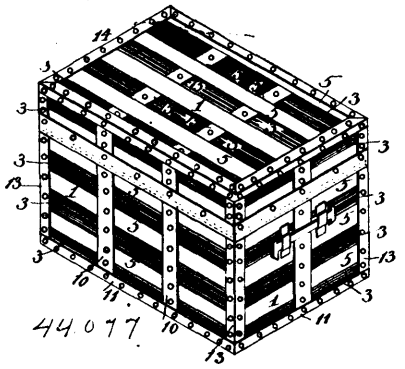
saturated with moisture at a temperature of from 55 to 70 degrees F., withering the same by passing a current of non-saturated air through it, and whitening the grain by passing a current of air mixed with a limited amount of bleaching agent through it, producing thereby a continuous couching, germinating, withering and whitening of the grain by variable conditions in a single apparatus, substantially as set forth and described. 11th. The improvement in the art of malting, which consists in couching the previously steeped grain by holding it in bulk in a quiescent state to develop spontaneous heat, germinating the same by intermittingly agitating the grain while subjecting it to the influence of air saturated with moisture at a temperature of from 55 to 70 degrees F, withering the same by passing a current of non-saturated air through it, and curing the grain by passing a dry hot air through it while under intermittent agitation, producing thereby a continuous couching, germinating, withering and curing of the grain by variable atmospheric conditions in a single apparatus, substantially as set forth and described. 12th. That improvement in the art of malting which consists in couching the previously steeped grain by holding it in bulk in a quiescent state to develop spontaneous heat, germinating the same by intermittingly agitating the grain while subjecting it to the influence of air saturated with moisture at a temperature of from 55 to 70 degrees F., withering the same by passing a current of non-saturated air through it, and curing the same by passing a dry hot air through the grain under increasing temperature and dryness of air from above the temperature and humidity used in withering to a practically dry air preferably at a temperature of from 180 to 220 degrees F., while under increased intermittent agitation, producing thereby a continuous couching, germinating, withering and curing of the grain by variable atmospheric and agitating conditions in a single apparatus, substantially as set forth and described. 13th. That improvement in the art of malting which consists in couching the previously steeped grain by holding it in bulk in a quiescent state to develop spontaneous heat, germinating the same by intermittingly agitating the grain while subjecting it to the influence of air saturated with moisture at a temperature of from 55 to 70 degrees F., withering the same by passing a current of non-saturated air through it, whitening the grain by passing a current of air mixed with a limited amount of bleaching agent through it, and curing the same by passing a dry hot air through it while under increased intermittent agitation producing thereby a continuous couching, withering, whitening and curing of the grain by variable atmospheric and agitating conditions in a single apparatus, substantially as set forth and described. 14th. That improvement in the art of malting which consists in couching the previously steeped grain by holding it in bulk in a quiescent state to develop spontaneous heat, germinating the same by intermittingly agitating the grain while subjecting it to the influence of air saturated with moisture at a temperature of from 55 to 70 degrees F., withering the same by passing a current of non-saturated air through it, whitening the grain by passing a current of air mixed with a limited amount of bleaching agent through it, and curing the grain by passing dry hot air through it under increasing temperature and dryness from and above the temperature and humidity used in withering to a practically dry air preferably at a temperature of from of 180 to 220 degrees F., producing thereby a continuous couching, germinating, withering, whitening and curing of the grain by variable conditions in a single apparatus, substantially as set forth and described. 15th. That improvement in the art of malting which consists in couching the previously steeped grain by holding it in bulk in a quiescent state to develop spontaneous heat germinating the same by intermittingly agitating the grain while subjecting it to the influence of air saturated with moisture of from 55 to 70 degrees F., withering the same by passing a current of air through it, whitening the grain by passing a current of air mixed with a limited amount of bleaching agent through it, and curing the same by passing a dry hot air through it under increasing temperature and dryness from and above the temperature and humidity used in withering to a practically dry air preferably at a temperature of from 180 to 220 degrees F., while under increased intermittent agitation, producing thereby a continuous couching, germinating, withering, whitening and curing of the grain by variable atmospheric and agitating conditions in a single apparatus, substantially as set forth and described. 16th. That improvement in the art of malting which consists in steeping the grain by subjecting it to saturation with water at a temperature of from 50 to 60 degrees F., to cause the grain to absorb moisture, draining the same and then couching it by holding it in bulk in a quiescent state to develop spontaneous heat, germinating the same by intermittingly agitating the grain while subjecting it to the influence of air saturated with moisture at a temperature of from 55 to 70 degrees F., withering the same by passing a current of non-saturated air through it, and whitening the grain by passing a current of air mixed with a limited amount of bleaching agent through it, producing thereby a continuous steeping, couching, germinating, withering and whitening of the grain by variable atmospheric and agitating conditions in a single apparatus, substantially as set forth and described. 17th. That improvement in the art of malting which consists in steeping the grain by subjecting it to saturation with water at a temperature of from 50 to 60 degrees F., to cause the grain to absorb moisture, draining the same, and then couching it by holding it in bulk in a quiescent state to develop spontaneous heat, germinating the same by intermittingly agitating the grain while subjecting it to the influence of air saturated with moisture at a temperature of from 55 to 70 degrees F., withering the same by passing a current of non-saturated air through it, and curing the grain by passing a dry, hot air through it while under increased intermittent agitation, producing thereby a continuous steeping, couching, germinating, withering and curing of the grain under variable and atmospheric conditions in a single apparatus, substantially as set forth and described. 18th. That improvement in the art of malting which consists in steeping the grain by subjecting it to saturation with water at a temperature of from 50 to 60 degrees F., to cause the grain to absorb moisture, draining the same, and then couching it by holding it in bulk in a quiescent state to develop spontaneous heat, then germinating the same by intermittingly agitating the grain while subjecting it to the influence of air saturated with moisture at a temperature of from 50 to 70 degrees F., withering the same by passing a current of non-saturated air through it, and curing the grain by passing dry, hot air through it under increasing temperature and dryness from and above the temperature and humidity used in withering up to a practically dry air preferably at a temperature of from 180 to 220 degrees F., while under increased intermittent agitation, producing thereby a continuous steeping, couching, withering and curing of the grain by variable atmospheric conditions in a single apparatus, substantially as set forth and described. 19th. That improvement in the art of malting which consists in steeping the grain by subjecting it to saturation with water at a temperature of from 50 to 60 degrees F., to cause the grain to absorb moisture, draining the same, and then couching it by holding it in bulk in a quiescent state to develop spontaneous heat, then germinating the same by intermittingly agitating the grain while subjecting it to the influence of air saturated with moisture at a temperature of from 55 to 70 degrees F., withering the same by passing a current of non-saturated air through it, whitening the grain by passing a current of air mixed with a limited amount of bleaching agent through it, and curing the same by passing dry hot air through it while under increased intermittent agitation, producing thereby a continuous steeping, couching, withering, whitening and drying of the grain by variable humid atmospheric conditions in a single apparatus, substantially as set forth and described. 20th. That improvement in the art of malting, which consists in steeping the grain by subjecting it to saturation with water at a temperature of from 50 to 60 degrees F. to cause the grain to absorb moisture, couching it by holding it in bulk in a quiescent state to develop spontaneous heat, germinating the same by intermittingly agitating the grain while subjecting it to the influence of air saturated with moisture at a temperature of from 55 to 70 degrees F., withering the same by passing a current of non-saturated air through it, whitening the grain by passing a current of air mixed with a limited amount of bleaching agent through it, and curing the same by passing a dry hot air through it under increasing temperature and dryness from and above the temperature, and humidity used in withering to a practically dry air preferably at a temperature of from 180 to 220 degrees F., producing thereby a continuous steeping, couching, germinating withering, bleaching and curing of the grain under variable humid and atmospheric conditions in a single apparatus, substantially as set forth and described. 21st. That improvement in the art of malting, which consists in steeping the grain by subjecting it to saturation with water at a temperature of from 50 to 60 degrees F. to cause the grain to absorb moisture, couching it by holding it in bulk in a quiescent state to develop spontaneous heat, germinating the same by intermittingly agitating the grain while subjecting it to the influence of air saturated with moisture at a temperature of from 55 to 70 degrees F., withering the same by passing a current of non-saturated air through it, whitening the grain by passing a current of air mixed with a limited amount of bleaching agent through it, and curing the same by passing dry hot air through it under increasing temperature and dryness from and above the temperature and humidity used in withering up to a practically dry air preferably at a temperature of from 180 to 220 degrees F., and while under increased intermittent agitation, producing thereby a continuous steeping, couching, germination, withering, whitening and curing of the grain under variable humid atmospheric and agitating conditions in a single apparatus, substantially as set forth and described.

No. 44,077. Trunk. (*Coffre.*)

Esau Duerden Taylor, Homellsville, New York, U.S.A., 25th August, 1893; 6 years.

Claim.—A trunk or analogous article, having its walls formed of a series of stiffening pieces, and a sheet of flexible material passing alternately from the outside to the inside of the wall and partly around said pieces, and having the connection portions 4, situated at substantially right angles to the faces of said walls, substantially as set forth. 2nd. A trunk or analogous articles, comprising a series of stiffening pieces, a metallic sheet passing alternately over the inner and outer faces of said pieces, and transverse bands lying upon said pieces and sheet and connected therewith, substantially as set forth. 3rd. In a trunk or analogous article, the combination, of a sheet of flexible material bent to form recesses or corrugations on its inner and outer sides, and having connecting portions joining the outer and inner parts of the sheet, and stiffening pieces situated in said recesses, said sheet being continuous from one face to

another of the trunk, substantially as set forth. 4th. The combination, of a series of stiffening pieces, a sheet of flexible material

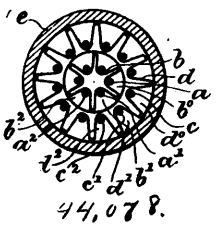


bent to receive said pieces alternately on its outer and inner faces, and having the connecting portions 4, situated at substantially right angles to the faces of said walls, and securing means for holding said sheets and pieces together, substantially as set forth. 5th. The combination, of a series of stiffening pieces, a sheet of flexible material bent to receive said pieces alternately on its outer and inner faces, and transverse bands and rivets uniting said pieces and material, substantially as set forth. 6th. The herein described method of making trunks and other articles, consisting in forming a sheet of flexible material, with alternate crimped portions or recesses on both of its sides, and filling said recesses with stiffening pieces, then removing portions of said pieces, and then bending the sheet to form the body of the article, substantially as set forth. 7th. The herein described method of making trunks and other articles, consisting in forming a sheet of separate stiffening pieces, and continuous flexible binding material, which passes alternately in front of and behind said pieces, then securing together said pieces and material, then removing portions of the stiffening pieces, and then bending the sheet, substantially as set forth. 8th. The herein described method of making trunks and other articles, consisting in forming a continuous flat sheet of stiffening pieces, and flexible binding material which passes alternately in front of and behind said pieces, then securing together said pieces and material while said sheet is in a substantially flat form by rivets or nails, then removing portions of the stiffening pieces on the lines where the angles of the finished article are to occur, and then bending the sheet on said lines to form the body of the article, substantially as set forth. 9th. A trunk or analogous article, having its walls formed of a series of stiffening pieces, and a sheet of flexible material passing alternately from the outside to the inside of the wall and partly around said pieces, and having the strips 8, substantially as set forth. 10th. As an improved article of manufacture, a trunk having its walls formed of a series of stiffening pieces, a sheet of flexible material, which passes alternately from the inner to the outer side of the trunk, and is bent to form recesses in which said pieces are seated, and pieces extending crosswise of said recesses and connected with the sheet, substantially as set forth.

No. 44,078. Electric Cable.

(*Cable électrique.*)

Fig. 1.

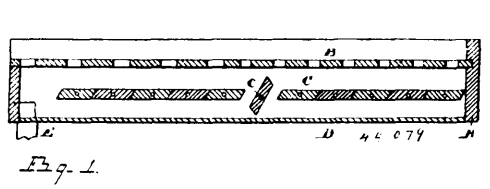


Theodore Guilleaume, Cologne, Germany, 25th August, 1893; 6 years.

Claim.—1st. For use in an electric cable, a body of non-conducting material such as b or d, star-shaped in cross section so as to form longitudinal grooves or air channels in which naked conductors may lie, and twisted about its own axis, substantially as herein described. 2nd. In an electric cable or strand for the same, the combination, with the naked conductors a, a^1, a^2, etc., of the body of non-conducting material b, star-shaped in cross section and twisted to form spiral grooves or air spaces b^0, b^1, b^2, etc., and having the several conductors lying in the respective grooves, substantially as herein described. 3rd. In an electric cable or strand for the same, the combination, with the naked conductors c, c^1, c^2, etc., of the longitudinally flanged body of non-conducting material d twisted to form spiral grooves or air spaces d^0, d^1, d^2, etc., and having the several conductors lying in the respective grooves, substantially as herein described. 4th. In an electric cable, the combination, with a series of naked conductors a, a^1, a^2, etc., each lying in its own air space in a spirally grooved body of non-conducting material, of a series of naked conductors c, c^1, c^2, etc., each lying in its own air space in a similar spirally grooved body of non-conducting material, the latter group of parts surrounding the former group, substantially as herein described. 5th. In an electric cable, the combination of a series of naked conductors a, a^1, a^2, etc., and spirally grooved non-conducting body b, a series of naked conductors c, c^1, c^2, etc., and spirally grooved non-conducting body d, and the lead or equivalent protective sheathing e, substantially as herein set forth.

No. 44,079. Agitable Sieve Cut-off.

(*Détente agitable pour tamis.*)

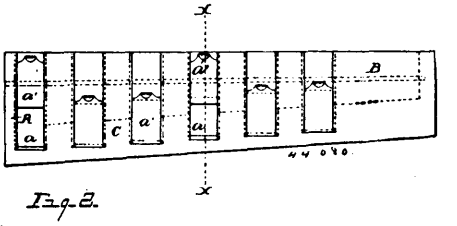


David J. Davidson, Brockway, Abraham S. Martin, and Stephen G. Martin, both of Port Huron, all of Michigan, U.S.A., 26th August, 1893; 6 years.

Claim.—1st. In combination a sieve supporting case, a sieve engaged with said case, a cut-off bottom located below the sieve, said cut-off bottom composed of a series of rotatable valves, the case, sieve and valves being simultaneously agitable, substantially as described. 2nd. In combination a sieve supporting case, a sieve engaged with said case, a cut-off bottom located below the sieve, said cut-off bottom composed of a series of rotatable valves, the case, sieve and valves being simultaneously agitable, said valves being provided with operating handles and said sieve being graduated, substantially as described. 3rd. In combination a sieve supporting case, a sieve engaged with said case, a stationary bottom at the under side of the case, a cut-off bottom intermediate the sieve and the stationary bottom, said cut-off bottom consisting of a series of rotatable valves, said case provided with a discharge opening, substantially as described. 4th. In combination an independent sieve supporting case, a sieve engaged with said case, a movable cut-off bottom located below the sieve and spaced therefrom, said movable bottom composed of a series of independent valves, said case, sieve and cut-off bottom made simultaneously movable, substantially as described. 5th. In combination, an independent sieve supporting case, a sieve engaged therewith, a movable cut-off bottom located below the sieve and spaced therefrom, and a fixed bottom located below the cut-off bottom and spaced therefrom, said cut-off bottom constructed of a series of independent valves, said case, with its sieve, cut-off bottom and fixed bottom made simultaneously movable, substantially as described.

No. 44,080. Agitable Sieve Cut Off.

(*Détente agitable pour tamis.*)

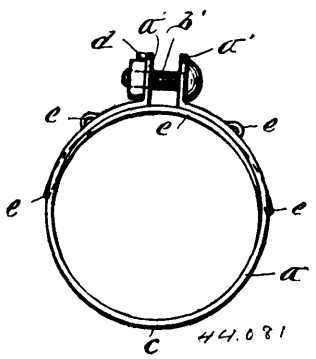


David J. Davidson, Brockway, Abraham S. Martin and Stephen G. Martin, both of Port Huron, all of Michigan, U.S.A., 26th August, 1893; 6 years.

Claim.—1st. In combination, a sieve supporting case, constructed with side discharge openings, means to control said openings, a sieve engaged in said case, and a cut off bottom located below the sieve discharging through said side openings, substantially as described. 2nd. In combination, a sieve supporting case, a sieve engaged in said case, a cut off bottom located below the sieve and provided with transverse channels, side discharge openings in said case corresponding to said channels, and means for controlling said discharge openings, substantially as described. 3rd. In combination, a sieve supporting case constructed with side discharge openings, means to control said openings, a sieve engaged in said case, and a closed or tight cut off bottom

located below the seive, constructed with transverse channels on its upper surface discharging through said openings respectively, said case, sieve and cut off bottom being simultaneously agitable, substantially as described.

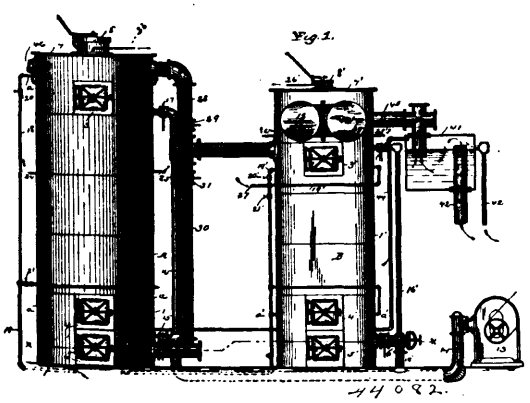
No. 44,081. Hose Clamp. (*Manchon de boyaux.*)



Lewis Hamilton Redfield and John Richard Clancy, both of Syracuse, New York, U.S.A., 26th August, 1893; 6 years.

Claim.—1st. The within described blank for a hose clamp band stamped out of flexible sheet metal, having in its end portions perforations elongated in the direction of the length of the band, and longitudinal slots in its main portion, as set forth. 2nd. A hose clamp consisting of a circular band of sheet metal terminating with radial outwardly projecting ears, perforated in said ears and slotted longitudinally in its main portion, and having in one of said slots a longitudinal tongue integral at one end with the band adjacent to the ear, and extending with its free end along the inner side of the band and into the opposite slot and outside of the inner periphery of the band, and a clamping bolt passing through the aforesaid ears, as set forth. 3rd. A hose band clamp having radially outward projecting clamping ears provided with nut locking flanges, as set forth.

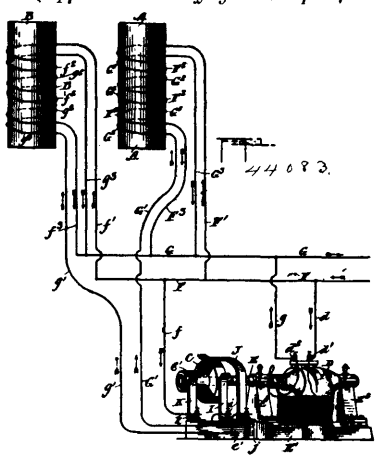
No. 44,082. Gas. (*Gaz.*)



James Gray, Lima, Ohio, U.S.A., 26th August, 1893; 6 years.

Claim.—1st. In gas producing apparatus, the combination of a gas generator, one or more retorts located in the combustion chamber of said generator and communicating with said combustion chamber, a valve controlling the communication between said combustion chamber and said retort or retorts, a pipe connecting the bottom of said generator with said retort or retorts controlled by suitable valves, and a blast device connected with the upper and lower parts of said generator and valves in said blast connections, substantially as described. 2nd. In gas producing apparatus, the combination of a gas generator, a blast device connected with the upper and lower parts of said generator, gas connections from the upper and lower parts of said generator to a second gas generator, and one or more retorts located in the combustion chamber of said second generator and communicating with said chamber, the whole system being provided with suitable valves, substantially as described. 3rd. In gas producing apparatus, the combination of a gas generator, a blast device connected with said generator, a gas connection to a second gas generator, said gas generator, a blast device connected with said second generator and one or more retorts located in the combustion chamber of said second generator and communicating with said combustion chamber, the whole system being provided with suitable valves, substantially as described. 4th. In gas producing apparatus, the combination of a gas generator, a blast device connected with said generator, a gas connection to a second gas generator, said second gas generator, one or more retorts located in the combustion chamber of said second generator and communicating with said combustion chamber, and a valve controlling the communication between said retort or retorts and the combustion chamber, substantially as described. 5th. The improved process of manufacturing gas which consists in generating water gas, carburetting the same, and fixing the resulting gas by the heat developed in its generation substantially as described.

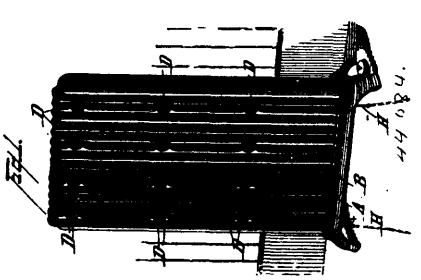
No. 44,083. Electric Heater.
(*Appareil de chauffage électrique.*)



The American Electric Heating Company, assignees of Samuel B. Jenkins, all of Boston, Massachusetts, U.S.A., 25th August, 1893; 6 years.

Claim.—1st. A series of cores arranged individually at the points where an induced current and its results are needed, in combination with a series of coils or helices wound thereon and forming a part of a circuit for a continuous current, a second series of coils or helices wound on the same cores and forming a part of the circuit for an interrupted current, mechanism for automatically interrupting the latter current either for the individual coils in succession or for the series taken together in order to create an induced current, substantially as set forth. 2nd. The method of generating heat by electricity and applying the same to a heating system for various points or apartments, consisting in sending a continuous current and an intermittent current in opposite directions with respect to the length of the cores on which they are wound, the interruption of the latter current generating a reversed induced current, and producing heat thereby known as the heat of hystereses while the continuous current first mentioned prevents sparking at such interruption, substantially as set forth. 3rd. A motor and commutator, in combination with a series of magnetic cores, two series of coils and helices wound thereon, conductors for making circuit for a continuous current through the first series of helices, and conductors and contact pieces for making intermittent circuit through the helices of the second series individually or collectively by means of the said commutator, the two currents entering at opposite ends of said helices, substantially as set forth.

No. 44,084. Radiator. (*Calorifère.*)

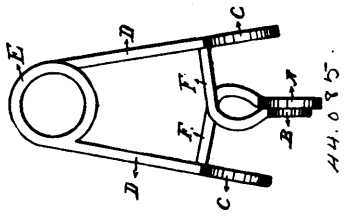


The American Electric Heating Company, Boston, assignee of Willis Mitchell, Malden, all of Massachusetts, U.S.A., 26th August, 1893; 6 years.

Claim.—1st. A radiator for heating rooms, halls and other spaces, consisting of a shell having a front wall provided with openings and inwardly extending cores concentric therewith, and open at their inner ends, in combination with electric heating devices applied to the said cores, substantially as set forth. 2nd. In a radiator consisting of a hollow shell, the perforated bottom A^1 and back plate C, in combination with the front plate B, provided with openings

and short tubular cores D extending inward therefrom and open at their inner ends, and heaters G applied to said cores, for the purpose set forth. 3rd. A radiator provided with internally extending cores, in combination with electrical heaters applied to said cores, each heater consisting of successive helicoidal coils of wire in the electric circuit and interposed cylindrical partitions, substantially as set forth.

No. 44,085. Clothes Pin. (*Epingle à linge.*)



Abraham Grégoire, Chambly Basin, Quebec, 28 août 1893; 6 ans.

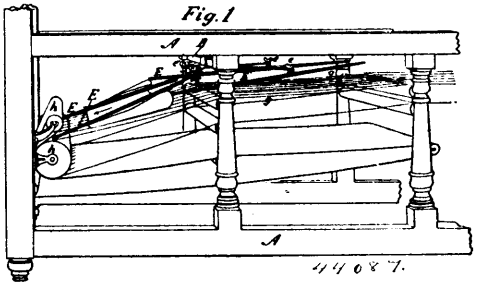
Résumé.—Un nouvel article de manufacture consistant en une épingle à linge formée d'un seul bout de fil métallique courbé de façon à former une spirale E, servant de ressort, deux veillets *c*, *c*, pour faciliter l'empoignement et limiter la détente du ressort et des veillets A et B, pour retenir le linge, tel que décrit.

No. 44,086. Process of Producing a Gloss on Wood, etc. (*Procédé pour donner au bois une surface polie.*)

Byron Benjamin Goldsmith, New York City, New York, U.S.A., 28th August, 1893; 6 years.

Claim.—1st. The process of finishing articles of wood or other absorbent material which consists in first producing upon the same a coat or coats of varnish containing pyroxiline or pyroxiline compound, then producing upon this coat or coats a layer or layers of gloss varnish, and finally superimposing over the gloss varnish a layer of varnish containing pyroxiline or pyroxiline compound, substantially as described. 2nd. The process of finishing articles of wood, or other absorbent material which consists in producing upon the same a series of coats of varnish containing gradually diminished quantities of pyroxiline and gradually increased quantities of resin, and finally superimposing upon these coats one or more coats of a varnish containing pyroxiline in excess, substantially as described. 3rd. The use of pyroxiline and gloss varnishes on wooden and other absorbent articles for the production of a high and enduring gloss, and for the preservation of the natural colour of the articles.

No. 44,087. Paper Ruling Machine.
(*Machine à régler le papier.*)



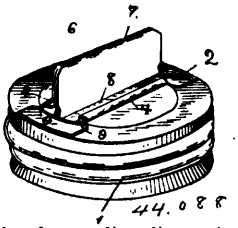
Joseph Armstrong Murdock, Saint John, New Brunswick, Canada, 28th August, 1893; 6 years.

Claim.—1st. In a ruling machine, the combination of rods E E, E E, supported by universal and securable joints from a fixture C, as set forth. 2nd. In a ruling machine, the combination of rods E E, supported by universal joints F, F, from horizontally movable radiating arms, secured to fixture C, substantially as described. 3rd. In a ruling machine, the combination of rods E E, E E, into front and back pairs adjustable independently of each other, substantially as and for the purpose hereinbefore set forth. 4th. The arrangement of rods E, E, supported by universal joints F, F, and having grooves for longitudinal adjustment, the movable arms *d*, *d*, supporting rods E, E, by universal and securable joints F, F, all dependent from fastening C, in combination with bar B, and the carrying threads *g*, *g*, of the ruling machine, as shown and described.

No. 44,088. Thumb Piece for Jars and Cans.
(*Anse pour jarres et bidons.*)

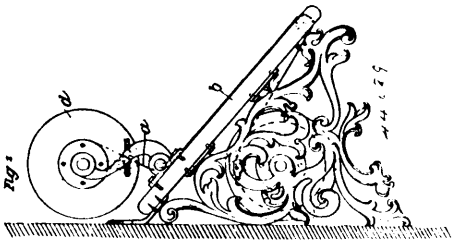
Clark Thompson, Brant, Hariton, Iowa, U.S.A., 28th August, 1893; 6 years.

Claim.—1st. In combination with a jar or can top, of a guide secured thereto, and a thumb-piece, having lower flanges removably and slidingly engaging said guide, substantially as described. 2nd. In combination, with a jar or can top, of a plate secured to the



upper portion thereof and extending diametrically of the same and provided with inwardly turned flanges, forming a guide, and a thumb piece formed with lower flanges that removably engage the said guide, and having shoulders at one end of the same and abut against one end or the other of the said inwardly turned flanges, substantially as described.

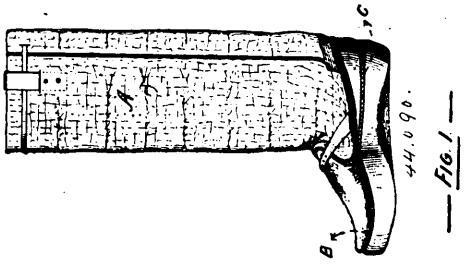
No. 44,089. Writing Pad for Telephones.
(*Papier à écrire pour téléphones.*)



Carl Gustave Nestler, Chemnitz, Saxony, Germany, 28th August, 1893; 6 years.

Claim.—1st. In a memorandum desk for telephones, a supply paper roll C, in combination with the disc plate *b*, over which the paper *b*, stretches to the roll *d*, on which the paper is wound after use, substantially as and for the purpose specified.

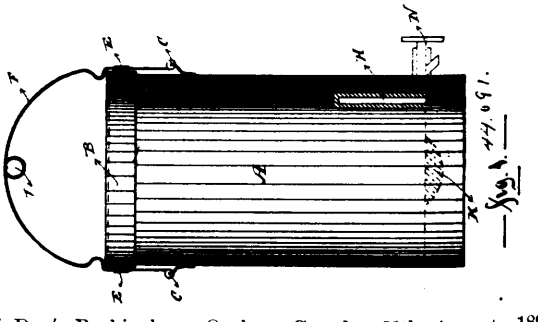
No. 44,090. Beef Skin Moccasin.
(*Mocassins en peau de bœuf.*)



Joseph Edouard Contois, Parish of St. John de Somerset, Megantic, Quebec, Canada, 28th August, 1893; 6 years.

Claim.—In an article of manufacture, a beef skin moccasin, having the seams B and C, stitched from the inside, substantially as and for the purpose hereinbefore set forth.

No. 44,091. Creamer. (*Crémeuse.*)

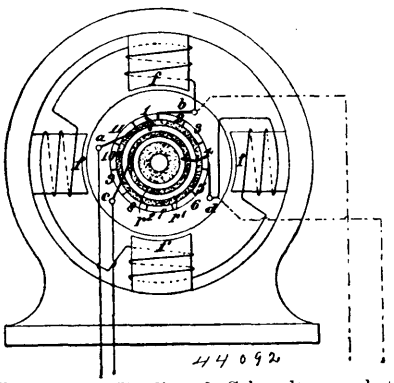


Aldé Doré, Buckingham, Quebec, Canada, 28th August, 1893; 6 years.

Claim.—A creamer comprising the can A, with cover B, and supports D, having weight K, and indented catch E, on each side to admit of the galvanized handle F, with loop E, arranged and combined, substantially as and for the purpose hereinbefore set forth.

No. 44,092. Electric Motor. (*Moteur électrique.*)

Fig. 1.

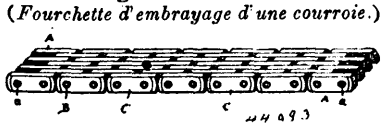


Herbert A. Wagner and Ferdinand Schwedtmann, both of St. Louis, Missouri, U.S.A., 28th August, 1893; 6 years.

Claim.—1st. An electric motor having suitable electrical connections, whereby the said motor may be started as an ordinary alternating motor with alternating field magnets, and subsequently changed into a synchronous alternating motor with constant field magnets. 2nd. An electric motor having suitable electrical connections, whereby the said motor may be started as an ordinary alternating motor with alternating currents in both armature and field coils, and means whereby the electrical connections of said motor may be changed at will to operate as a synchronous alternating motor with constant self-exciting field magnets. 3rd. An electric motor provided with an ordinary commutator and suitable electrical connections, collecting rings with suitable electrical connections, and means for changing at will the aforesaid electrical connections of said motor whereby the same may be started as an ordinary alternating motor with alternating field magnets, and subsequently maintained in operation as a synchronous motor with constant field magnets. 4th. The combination, in a motor for alternating currents, of a field frame carrying bobbins of wire provided with suitable electrical connections, an armature, the wire on which is connected with a commutator, and also with collecting rings, and a switch, whereby currents may be directed to said armature either by way of the commutator or by way of the collecting rings. 5th. In an electric motor for alternating currents, the combination of an armature, a commutator, and collecting rings whereby (the armature revolving at proper speed) alternating currents led into said armature by way of the said collecting rings may be transformed into direct currents when led out again by way of said commutator. 6th. A synchronous alternating electric motor, provided with an ordinary commutator and commutator brushes having suitable electrical connections, collecting rings carried by the armature of said motor, collecting brushes therefor having suitable electrical connections, and switching devices, whereby the motor may be started as an ordinary alternating motor with alternating field magnets, and subsequently be run as a synchronous alternating motor with constant self-exciting field magnets. 7th. An electric motor having its armature provided and connected with an ordinary commutator brushes suitably connected to the field coils, and also provided with collecting rings and collecting brushes, the said collecting rings being in suitable electrical communication with the armature winding, electrical connections leading from said collecting brushes to opposite switch contacts, a second set of oppositely arranged switch contacts connected to the commutator brushes, switch contacts for the external circuit co-operating with the other contacts respectively, and a switch arm and suitable contact devices carried thereby, whereby the motor may be started as an ordinary alternating current motor having alternating field magnets, and after starting changed into a synchronous alternating motor having constant field magnets, by suitably manipulating said switch. 8th. In an electric motor for alternating currents, an armature on which are wound two independent windings or circuits insulated one from the other, one of which windings is connected to a commutator and the other to a pair of collecting rings, whereby, when the speed of said armature is in synchronism with the periodicity of the current, alternating currents when led through one winding by way of the collecting rings may induce currents in the other winding which may be commuted into direct currents by means of the commutator connected therewith and used thereafter to excite the field magnets of said motor, or put to any other use desired.

No. 44,093. Driving Belt.

(*Fourchette d'embrayage d'une courroie.*)



Charles L. Ortmann, Detroit, Michigan, U.S.A., 28th, 1893; 6 years.

Claim.—A link for a driving belt, constructed of cellulose compressed into a single integral mass, substantially as described.

No. 44,094. Electrical Insulating Plate.

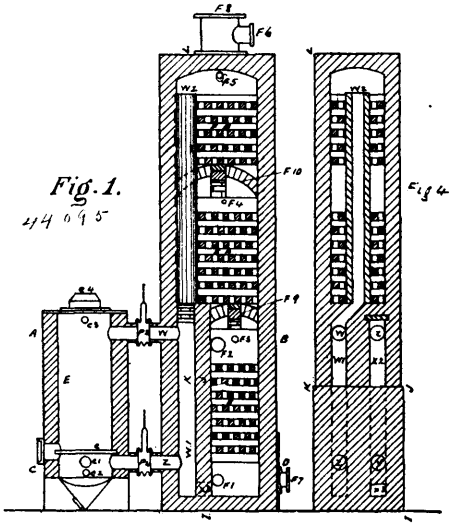
(*Isoloir électrique.*)

Charles Wilkin Jefferson, Arthur Henry Salisbury Dyer and Rupert Reginald St. John, all of Schenectady, New York, U.S.A., 28th August, 1893; 6 years.

Claim.—1st. An electrical insulating plate consisting of the combination of a layer of mica sheets whose edges overlap a film of insulating cement, a second layer of mica sheets whose edges overlap, a second film of insulating cement and so on, to the desired thickness of insulating plate, all the films and layers being substantially parallel to one another. 2nd. As an article of manufacture, a built up insulating plate, consisting of the combination of alternate layers of insulating cement and irregularly arranged and partially overlapped irregularly shaped elementary sheets of mica. 3rd. As an article of manufacture, an electrical insulating sheet consisting of the combination of scales of mica of a given size, a sheet of mica of larger size, and a cement between the scales and the said sheets, for the purpose, as set forth, of holding the same together into a compact, durable and efficient insulating sheet. 4th. As a new article of manufacture, an electrical insulating sheet consisting of the combination of laminæ, each formed of elementary mica scales of a given size and of irregular shape, overlapping one another at their edges, electrically insulating cement between the said laminæ, and between the scales at their overlapping edges, for the purpose as set forth, of holding the same together, and larger scales covering and cemented to the said smaller scales. 5th. As an article of manufacture, a built up insulating sheet consisting of the combination of alternate layers of mica scales with overlapping edges, and insulating cement between the overlapping portions and an outer layer consisting of a series of mica sheets of larger size than the said mica scales, applied and cemented to the same. 6th. The hereinbefore described method of building up electrical insulating mica sheets, consisting in varnishing a foundation plate, placing mica scales thereon while the varnish is still wet or soft, with their edges overlapping, varnishing the mica sheets, thus forming a second and third and so forth layer of mica in a similar manner until the required thickness of mica sheet is obtained and chilling the sheet while rigidly held in a curved position. 7th. The method of manufacture electrical insulating mica sheets, the same consisting in using a large sheet of iron or similar foundation plate, and placing thereon a series of smaller mica scales with their edges overlaping each other, varnishing the layer of scales, and applying a second series of smaller sheets, with their edges overlapping, continuing in the same manner until a plate of the required thickness is formed, heating the sheet to partially evaporate the solvent of the varnish, rolling or pressing the same to remove the excess of the varnish, subjecting the sheet to a heavy pressure, and finally cooling it under pressure as hereinbefore described. 8th. The hereinbefore described method of manufacturing electrical insulating sheet mica, consisting in cementing together with overlapped joints scales of mica of various shapes or of a given size, varnishing the sheet thus formed, laying a second layer of scales in the same manner as before, and repeating these steps until the desired thickness is obtained, and finally cementing to the sheet thus formed a larger sheet upon one or both sides of the sheet which is made of the said smaller pieces. 9th. An electrical insulating plate consisting of alternate laminae of mica, varnish and fibrous material. 10th. An electrical insulating plate consisting of the combination of a layer of cloth, paper or similar fibrous material, such for example as Japanese tissue paper, a layer of elementary mica scales having their edges overlapping, and layers of an insulating cement between the above named elements. 11th. An electrical insulating plate, consisting of a core of fibrous material in the form of a sheet, and mica sheets applied and cemented to the sides thereof. 12th. An electrical insulating plate, consisting of the combination of elementary mica scales of a given size and of irregular shape overlapping one another at their edges, electrically insulating cement between the said laminæ and between the scales at their overlapping edges, for the purpose described of holding the same together, larger scales covering and cemented to the said smaller scales, and fibrous sheets cemented to one or both sides of the micaceous sheet thus formed. 13th. An electrical insulating plate, consisting of the combination of layers of mica scales of a given size, fibrous material, as cloth or paper, mica scales of a smaller size and irregular shapes with their edges overlapping one another, another layer of cloth or paper, and another layer of larger mica scales, all arranged in the order named. 14th. The hereinbefore described process of manufacturing flanged annular mica rings, consisting in forming a flat annular disc by cementing together laminæ of mica scales with overlapping edges, turning up the inner and outer peripheries by pressure while the cement is green or soft, drying the cement by the application of heat and finally chilling the mica. 15th. The hereinbefore described process of bending and setting mica sheets, consisting in building a mica sheet by cementing together laminæ of mica scales with overlapping edges, compressing the sheet into the desired form while the cement is wet, drying the cement by evaporating the solvent thereof, and finally chilling the molded mica sheet while under compression. 16th. A disc for insulating armature heads, consisting of concentric ring of mica scales which radiate from the centre and are overlapped and cemented together at their edges. 17th. A disc for insulating armature head, consisting of concentric rings of mica scales radiating from the centre, overlapping and cemented together at their edges, and a flange at the periphery of said disc.

18th. A built up electrical insulating plate, consisting of the combination of alternately arranged and parallel films of cement and layers of non-comminuted mica sheets with overlapping edges. 19th. A built up electrical insulating plate, consisting of the combination of layers of non-comminuted mica sheets with overlapping edges, and films of cement, the said layers being alternately arranged, all parallel to one another and equal to the said plate in length and breadth. 20th. The method of producing a built up electrical insulating plate, consisting in forming a layer of mica sheets upon a foundation plate, with their edges overlapping one another, varnishing the layer of mica thus formed, placing a second like layer of mica upon the cement, varnishing as before, and so on to the desired thickness of plate, and finally compressing the plate to remove the excess of the varnish. 21st. The method of producing a built up electrical insulating plate, consisting in forming a layer of mica sheets upon a foundation plate, with their edges overlapping one another, varnishing the layer of mica thus formed, placing a second layer of mica upon the cement, varnishing as before, and so on to the desired thickness of plate, and finally heating and compressing the plate to remove the excess of the varnish, and then chilling under pressure.

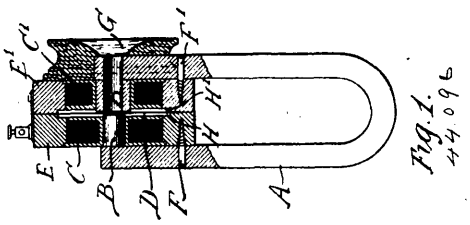
No. 44,095. Apparatus for Making Gas.
(*Appareil pour fabriquer le gaz.*)



Leonard J. Merrifield, Franklin, Massachusetts; John T. Westcott, Cramer's Hill, New Jersey, both in the U.S.A., and William H. Pearson, jr., Toronto, Ontario, Canada, 28th August, 1893; 6 years.

Claim.—1st. In an apparatus for making carburetted water gas, the combination of a generator and one or more superheating or fixing chambers or sets of chambers, the superheaters or fixing chambers to have four independent connections with the generator, two at the top and two at the bottom, each connection having a valve to control the movements of the gases, substantially as and for the purpose specified. 2nd. In an apparatus for making carburetted water gas, a superheating or fixing chamber or having a gas outlet at the top and at the bottom, substantially as and for the purpose specified. 3rd. In an apparatus for making carburetted water gas, the combination of superheating or fixing chambers each having two or more inlets for hydro-carbon vapours or liquids and masses of refractory material between the inlets for the vapours or liquids, substantially as and for the purpose specified. 4th. The combination of a generator and a superheating or fixing chamber having a flue extending from top to bottom of said chamber and having connections with the top and bottom of said generator, each connection having a controlling valve, substantially for the purpose specified. 5th. The combination of the superheating or fixing chambers having a set of flues or gas conduits, one terminating at the bottom and one at the top of the superheating or fixing chambers, and a generator having two outlets at the top and two at the bottom, and connected with said flues or gas conduits, and each inlet having a valve to control the flow of gases therethrough, substantially as and for the purpose specified. 6th. A superheating or fixing chamber divided into three or more divisions by arches with openings in them, and all within one external shell and for the purpose specified. 7th. A generator, having two openings for admission of steam, one at the top and one at the bottom, in combination with a superheating or fixing chamber contained in a shell and divided into three or more divisions by arches with openings in the arches, as and for the purpose specified. 8th. A generator, having two openings for admission of steam, one at the top and one at the bottom, in combination with a superheater chamber and a fixing chamber, substantially for the purpose specified. 9th. The combination, of a generator, a superheating or fixing chamber, and vertical flues to which the products of combustion from the generator pass before passing into the superheating or fixing chamber, for the purpose set forth. 10th. The combination, of a generator and a superheating or fixing chamber, having an outlet at each end and flues, one opening at the top and the other into the bottom of said chamber, and connected with the outlet or outlets of said generator, 11th. The combination, of a generator and a superheating or fixing chamber, having an outlet leading to a smoke stack, two outlets one at each end leading to the washer, etc., and two flues, one opening in the bottom and the other in the top of said chamber, and both connected with the outlet or outlets of the generator.

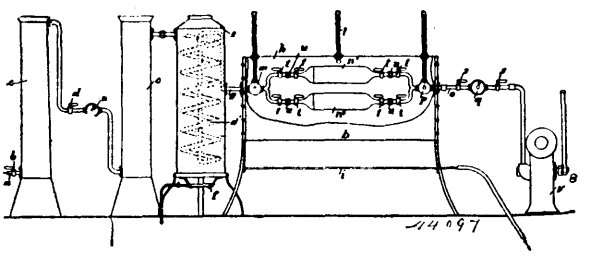
No. 44,096. Telephone. (*Téléphone.*)



Joseph Birdus Smith Booth and Ernest James Falconer, both of Manchester, England, 28th August, 1893; 6 years.

Claim.—1st. In an electric telephone, a single diaphragm arranged perpendicular to and between two co-axial pole pieces, of a permanent or electro-magnet, substantially as described and illustrated. 2nd. In an electric telephone, a single diaphragm arranged perpendicular to and between two co-axial pole pieces, of a permanent or electro-magnet, the pole pieces having thereon coils included in the line circuit and wound or joined in such a manner that the line current tends to produce similar polarity in the ends of the pole pieces next to the diaphragm, substantially as set forth. 3rd. In an electric telephone, the combination and arrangement with two co-axial pole pieces, of a permanent or electro-magnet, of a diaphragm arranged between the pole pieces, and a mouth piece and ear piece respectively, arranged on opposite sides of the diaphragm, substantially as set forth. 4th. In an electric telephone having two pole pieces acting on the same diaphragm, a coil on each pole piece, included in the line circuit, wound or connected in such a manner that the line current will tend to reinforce the magnetism in one pole piece and reduce that in the other, substantially as set forth. 5th. In combination with an electric telephone, a quadrant trumpet shaped mouthpiece K, constructed and arranged substantially as and for the purpose set forth.

No. 44,097. Process for Ascertaining the Quantity of Moisture Contained in Textile Stuffs.
(*Procédé pour constater la quantité d'humidité contenue dans les matières textiles.*)



Willy Saulmann, Berlin, Prussia, 28th August, 1893; 6 years.

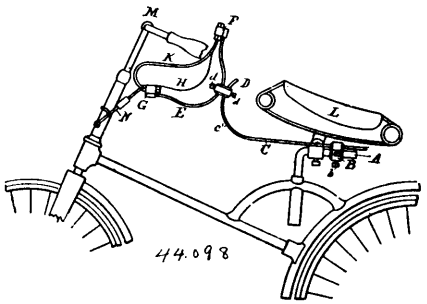
Claim.—1st. A method of conditioning textile fabrics, characterized by conducting dried and heated air by means of a suction device at an accelerated velocity through one or more receptacles containing the textile fibres to be treated and which are heated on the outside. 2nd. For carrying out the method of conditioning textile fabrics characterized an apparatus arranged in such a manner that the hot air freed from moisture by several drying devices and heated by a coil is conducted by means of a suction device through conditioning receptacles n^1, surrounded by hot air.

No. 44,098. Supplementary seats for Bicycle.
(*Siège supplémentaire pour bicycles.*)

James A. Sayer, Rochester, New York, U.S.A., 28th August, 1893; 6 years.

Claim.—1st. The combination, with a bicycle, of a spring support consisting of a bar or bars partly straight and partly bent in a regular curve, means for adjustably clamping said straight part horizontally, or nearly so, to the frame of the bicycle, a seat, and means of adjustably fastening the same to said curved part, substantially as and for the purposes set forth. 2nd. The combination, with a

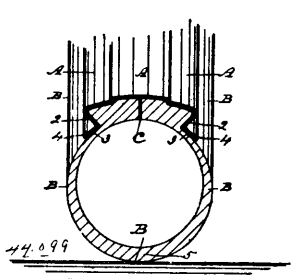
bicycle, of a spring support consisting of a pair of parallel bars having straight portion and portions bent in a regular curve, means



of adjustably fastening said straight parts horizontally, or nearly so, to the frame of the bicycle, a seat, and means of adjustably fastening the same to said curved portions, substantially as and for the purposes set forth. 3rd. The seat herein described, consisting of a back cross-piece and a front cross-piece, a seat connecting the same, a seat support connected to said back and front pieces and passing underneath and back of said seat, and suitable means of attaching the same to a bicycle, substantially as set forth. 4th. The seat herein described, consisting of a back cross-piece and a front cross-piece, a seat connecting the same, a seat support consisting of a pair of parallel rods connected to said back and front pieces and passing underneath and back of said seat, and suitable means of attaching the same to a bicycle, substantially as set forth. 5th. In a supplementary seat for bicycles, the combination of a back cross-piece, a front cross-piece, a seat connecting the same, rods connecting said back and front pieces outside of said seat, and a spring support attached to the main frame of the bicycle and to said rods, substantially as set forth. 6th. In a supplementary seat for bicycles, the combination of a back cross-piece, a front cross-piece, a seat connecting the same, parallel curved rods connecting said back and front pieces and passing underneath and back of said seat, and a spring support attached to the main frame of the bicycle and to said rods, substantially as set forth. 7th. In a supplementary seat for bicycles, the combination of a back cross-piece, a front cross-piece a seat connecting the same, a pair of parallel curved rods connecting said back and front pieces, and passing underneath and back of said seat, and a spring support consisting of a pair of parallel bars in part straight and in part bent in a regular curve, means of attaching said straight part to the main frame of the bicycle, and means of attaching said curved part adjustably to said rods and movable with reference to the same, substantially as set forth.

No. 44,099. Wheel Tire. (*Bandage de roue.*)

Fig. I.



Octave Lagarie, Hamilton, Ontario, Canada, 28th August, 1893; 6 years.

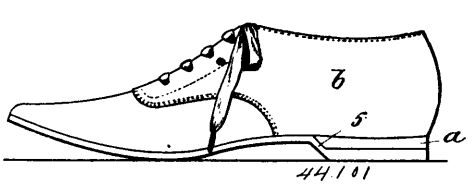
Claim.—1st. The metallic rim tire A, having sides bent acutely inwards as at 2, 2, and outwardly bent and extended flanges 3, 3, having concaved face to suit circular pneumatic rubber tire, and turned over or rounded edges 4, 4, substantially as and for the purpose hereinbefore set forth. 2nd. In a wheel tire, the metallic rim tire A, having side flanges 2, 2, bent at an acute angle to the concave of said tire, and extended outwards to form the flanges 3, 3, their bearing surface being concave to fit the diametrical form of rubber tire, in combination with the pneumatic rubber tire B, parted at C, and constructed with its outer diametrical part heavier as at 5, and its inner contour to conform to the rim and fasten therein, substantially as and for the purpose hereinbefore set forth.

No. 44,100. Process for Preparing Cereals for Beverage. (*Procédé pour préparer les céréales comme breuvage.*)

Franklin G. Callender, Toronto, Ontario, Canada, 28th August, 1893; 6 years.

Claim.—1st. A process for preparing cereals for beverage purposes, consisting in separating the nitrogenous matter of the cereal from the non-nitrogenous, and then cooking the nitrogenous matter of the cereal in and by its own moisture to such a degree that it will yield its properties to boiling water, substantially as set forth. 2nd. A process for preparing cereals for beverage purposes, consisting of separating the nitrogenous matter of the cereal from the non-nitrogenous matter, then appropriating the separated nitrogenous matter of the cereal by cooking it in and by its own moisture in a revolving perforated cylinder which is heated to a sufficient and uniform temperature to properly cook its contents, substantially as set forth.

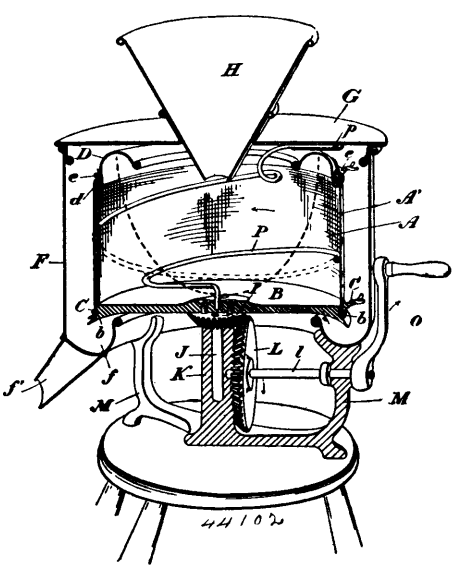
No. 44,101. Boots or Shoes. (*Chaussure.*)



Winslow Parker, Bradford, Haverhill, Massachusett, U.S.A., 28th August, 1893; 6 years.

Claim.—1st. A spring heel shoe, composed of an upper, a sole having inclined cross walls 2, 3, of different height, the heel end of the sole being depressed below the level of the inner end of the shank, with the wall 3 abutted against the wall 2, and a lift intermediate the heel end of the sole and the heel end of the upper, the bevelled inner edge of the lift being abutted against or supported by the longer incline 2 of the sole, the part of the sole between the longer inclined wall 2 and the outer side of the sole standing in an inclined position, keeping the inner end of the shank well elevated, and presenting a flat tread surface for the heel, substantially as shown and described. 2nd. As an improved article of manufacture, an outer sole having at its inner side a transverse acute angled notch in the line of the inner end of the shank, the walls of said notch being of different height and inclined from the toe end toward the heel end of the sole, the heel end of the sole being depressed to bring its inner side below the outer side of the sole at the inner end of the shank, the wall 2 abutting against part of the wall 3, and leaving a portion of the wall 3 in inclined position to receive a lift against it, substantially as described.

No. 44,102. Strainer for Mixed Paint.
(*Couloir pour la peinture.*)

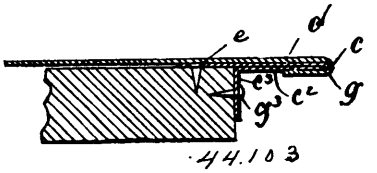


Charles John McLennan, Toronto, Ontario, Canada, 28th August, 1893; 6 years.

Claim.—1st. As a strainer for mixed paint, a cylindrical receptacle the portion of which is made of woven wire or cloth and the bottom of which is solid and centrally supported on a spindle upon which it is designed to be rotated, as and for the purpose specified. 2nd. The combination, with the cylindrical casing A, having a woven wire cloth cylindrical portion A^1, and solid bottom B, centrally secured on the pivot spindle J, of the bevel gear pinion I, and gear wheel L, designed to be rotated by the handle O, as and for the purpose specified. 3rd. The combination, with the cylindrical casing A, having a woven wire cloth cylindrical portion A^1, solid bottom B, and the inwardly and downwardly curved U-shaped

rim D, and means for rotating the cylindrical casing A, as and for the purpose specified. 4th. The combination, with the cylindrical casing A, having a woven wire cloth cylindrical portion A^1, and solid bottom B, and the inwardly and downwardly curved U-shaped rim D, of the wires C and *c*, designed to retain the woven wire cylindrical portion in position on the periphery of the bottom B, and upon the rim D, and means for rotating the cylindrical casing, as and for the purpose specified. 5th. The combination, with the cylindrical casing A, having a woven wire cloth cylindrical portion A^1, and solid bottom B, of the spiral scraper P, held securely at the top and bottom and having its convolutions designed to press against the woven wire cloth, and means for rotating the cylindrical casing, as and for the purpose specified. 6th. The combination, with the cylindrical casing A, having a woven wire cloth cylindrical portion A^1, and solid bottom B, and means for rotating the casing, of the outer casing F, provided with the annular trough *f*, and spout f^1, as and for the purpose specified. 7th. The combination, with the cylindrical casing A, having a woven wire cloth cylindrical portion A^1, and solid bottom B, and means for rotating the casing, of the outer casing F, provided with a top G, and funnel H, and at the bottom with an annular trough *f*, and spout f^1, as and for the purpose specified.

No. 44,103. Metallic Roofing. (*Toiture métallique.*)

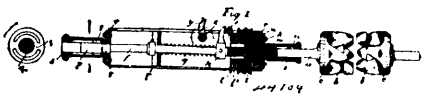


John T. Niel, Millersport, Ohio, 29th August, 1893; 6 years.

Claim.—1st. In a metal roof, the combination, with a roof framework, of side and gable metallic eaves, strips having their inner portions secured to said roof framework, and their outer portions projecting beyond the latter, and metallic roofing strips or plates *d*, adapted to cover the upper side of said roof framework and having their edges engaging with the eaves' strip edges, substantially as and for the purpose specified. 2nd. In a metal roof, the combination, with the roof framework, of side and end eaves strips, the latter having double outwardly projecting portions, downwardly projecting shoulder portions and inwardly extending attaching portions, said attaching portions and shoulder portion being adapted, as described, to be secured to the upper and outer side of said roof framework, and metallic roofing plates *d*, upon said framework, the latter having their edges engaging, as described, with the edges of the projecting portions of said strips, substantially as and for the purpose specified.

No. 44,104. Automatic Coupling for Vehicles.

(*Joint automatique pour voitures.*)

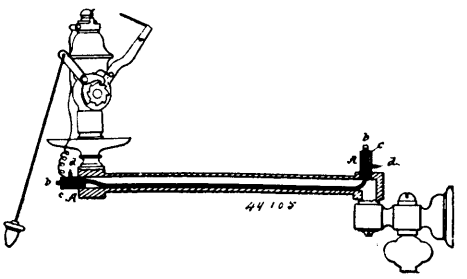


Herman Saanikopf, Brunswick, Prussia, Germany, 29th August, 1893; 6 years.

Claim.—1st. In automatic couplings for vehicles, the combination of a spindle provided with a screw thread, along part of its length, of a three claw head attached to said spindle, a nut working on the screw thread of the same, chain wheels in the bore of which the guide pieces of the nut can move freely, a disc and thumb piece attached to and rotating with said chain wheels, a thumb piece rigidly attached to the spindle, a spiral spring seated on spindle and a flat spring rigidly attached to the end of said spindle, guide cheeks attached to spindle and to the end of the flat spring, chain rollers and cog wheel gearing for actuating the same, chains connecting said chain wheels and rollers, a catch controlled from the sides of the wagon and means for operating the whole, substantially as and for the purposes herein described with reference to the accompanying drawing. 2nd. In automatic couplings for vehicles, the combination with a spindle provided with a claw head, of a nut seated on the screw thread cut in said spindle and moving freely in grooves cut in the bores of two chain wheels, thus allowing of the double motion of the coupling spindle, substantially as and for the purpose herein described with reference to the accompanying drawing. 3rd. In automatic couplings for vehicles, the combination with a spindle provided with a claw head, of a catch for holding the spindle in a non-operating position, said catch being actuated from the side of the wagon, substantially as and for the purpose herein described with reference to the accompanying drawing.

No. 44,105. Electrical Binding Post.

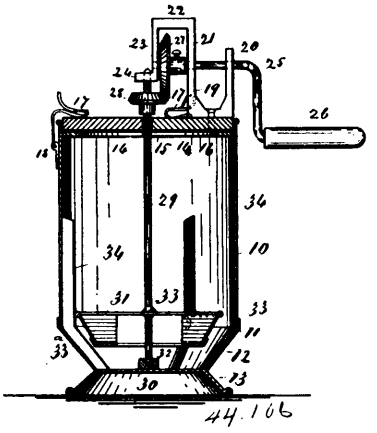
(*Cheville de liaison électrique.*)



Arnold Kohl, Centralia, Illinois, U.S.A., 29th August, 1893; 6 years.

Claim.—1st. An electrical binding post, formed of a longitudinally bored body, a clamping screw inserted in the side of the body and adapted to clamp an insulated wire within the binding post, a contact screw inserted in the end of the binding post, and a clamping nut on the contact screw, substantially as specified. 2nd. An electrical binding post, formed of a body of insulating material bored axially and provided with a clamping screw, an axially bored contact screw inserted in the end of the post, and clamping nut placed on the contact screw, substantially as specified. 3rd. The combination, with a gas fixture or any pipe of binding posts inserted in the fixture and provided with clamping and contact screws, substantially as specified.

No. 44,106. Churn. (*Baratte.*)



Silas J. Saron, Colfax, Washington, U.S.A., 29th August, 1893; 6 years.

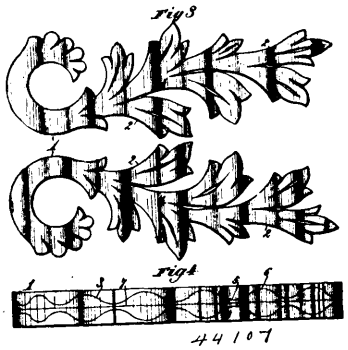
Claim.—1st. A churn, comprising a hollow body, having a tapering bottom and a suitable base, a plurality of fixed wings or abutments, produced vertically upon the body and within the churn, the lower portions of the abutments extending inward upon the tapering portion of the body, a revoluable and removable driving shaft held to turn vertically in the churn body, and a cup shaped dasher secured to the driving shaft and held to turn above the lower portions of the fixed abutments, the dasher being open at top and bottom, substantially as described. 2nd. A churn, comprising a cylindrical body portion with a suitable base, and a removable two-part cover, one part carrying a bracket with a crank shaft therein, a plurality of fixed wings or abutments secured to the inner side of the churn body, and extending downward to the bottom, a removable shaft held to turn in the churn body and geared to the crank shaft on the cover, a cup shaped dasher secured to the driving shaft and held to turn above the tapering portion of the body, said dasher being open at the top and bottom, and having wings extending radially inward from its sides, substantially as described.

No. 44,107. Wood Carving. (*Sculpture en bois.*)

William Freemont Deweese, Chicago, Illinois, U.S.A., 29th August, 1893; 6 years.

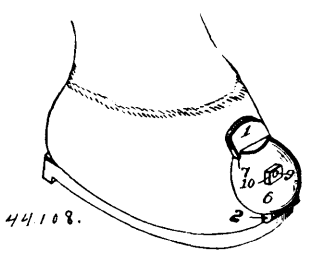
Claim.—1st. The method herein described, of manufacturing ornamental wood trimmings or carvings, which consists in first cutting an outline pattern in a flat piece of timber to produce a single integral pattern, and then severing the said pattern between its flat surfaces by a single dividing line, which is continuous from end to end and edge to edge, of the flat piece of timber, and has a double flexure or curvature, thus producing a pair of similar wood trimmings or carvings, each in a single integral piece with a flat

rear surface for attaching it to a support, substantially as set forth. 2nd. The method herein described, of manufacturing duplicate



wood trimmings or carvings, which consists in cutting out an outline pattern in a flat piece of timber, to produce a single integral pattern, and then severing the said pattern between its flat surfaces by sawing in an undulating line, which is continuous from end to end and edge to edge of the piece of timber, and has a double flexure or curvature between the opposite flat surfaces of said piece to produce similar wood trimmings or carvings, each in a single integral piece with a flat rear surface to attach it to a support, substantially as set forth.

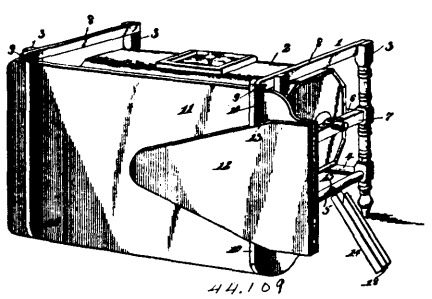
No. 44,108. Toe Weight. (*Contre-poids de sabot.*)



Charles M. McMillan, Red Cloud, Nebraska, U.S.A., 29th August, 1893 ; 6 years.

Claim.—The combination with the standard 1, having opposite dove-tailed edges, a lower bent end 2, and a longitudinal slot 3, having bevelled edges, said slot being provided at its lower end with an enlarged opening 5, and at intervals above the same with countersunk recesses 4, of the weight 6, the rear face of which is provided with the dove-tailed recess 7, mounted for sliding upon the standard, the bolt provided with a head at its inner end, passed through a perforation flared at its rear end and formed in the weight and through the slotted standard, the head of the bolt being adapted to be withdrawn through the hole 5 of the standard, and the nut upon the outer end of the bolt, substantially as specified.

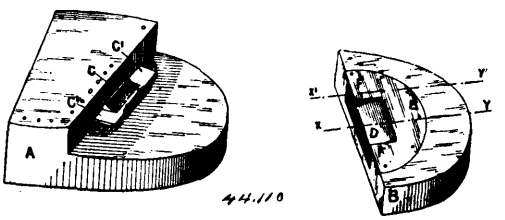
No. 44,109. Combined Ironing Table and Washing Machine. (*Table à repasser et machine à blanchir combinées.*)



William Hilton, Du Bois, Pennsylvania, U.S.A., 29th August, 1893; 6 years.

Claim.—1st. In a combined ironing table and washing machine, a rectangular frame consisting of corner posts connected by suitable longitudinal rails and transverse bars, which support the body of the washing machine, the upper transverse bars being provided with extensions, an ironing board provided with transverse cleats on its lower face hinged to said extensions, one of said cleats being provided with a recess, a hinged leaf or extension at one side of the ironing board adjusted to fold compactly against the lower face of the board and to fit in the recess of the cleat, and a support for holding the said extension in a horizontal position, substantially as described. 2nd. In a combined ironing table and washing machine, a rectangular frame consisting of corner posts connected by suitable longitudinal rails and transverse bars which support the body of the washing machine, an ironing board provided with transverse cleats on its lower face hinged to the upper transverse bars, one of the cleats being provided with a recess, a hinged leaf or extension at one side of the ironing board adjusted to fold compactly against the lower face of the board and to fit in the recess of the cleat, and provided on its lower face with a notch, and a brace hingedly connected at its lower end to the frame, and having its upper end bevelled to engage said notch and composed of two sections hingedly connected for folding, substantially as described.

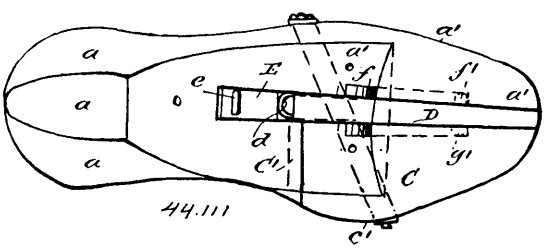
No. 44,110. Renewable Heel for Boot or Shoe.
(*Talon renouvelable pour chaussures.*)



James William Rogers, London, England, 29th August, 1893 ; 6 years.

Claim.—1st. A renewable heel for boots and shoes, formed of parts A and B, attachable and detachable by spring clip, substantially as described and set forth. 2nd. In a renewable heel for boots and shoes, the combination with the parts A and B, and a spring catch, of the parts F, of plate E, and the plate C, substantially as and for the purposes herein described and set forth.

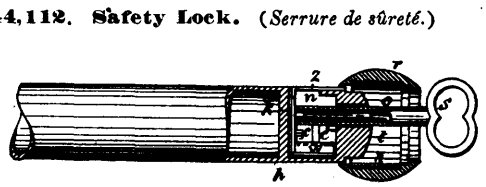
No. 44,111. Last. (*Forme.*)



Edward Clarkin, Montreal, Quebec, Canada, 29th August, 1893 ; 6 years.

Claim.—1st. A collapsible last, for the purposes set forth. 2nd. A collapsible last, formed of separable parts with means for locking the whole together. 3rd. A collapsible last, formed of separable parts having interlocking points and means for locking the whole together, as set forth. 4th. A collapsible last, formed of separable parts having interlocking points, one of which parts acts as an internal key or wedge, and an external block or top piece acting when set in place and secured to the main body of the last to hold the remaining parts in place, as set forth. 5th. In a last, the combination, with a main body portion, presenting an incomplete side to the last, of a free side portion adapted to complete the side of the last, and intermediate parts acting when in place to set such side portion in its proper relative position to said body portion and when withdrawn to allow of the collapsing or falling inward of said side portions, as set forth, with means for locking the whole together. 6th. In a last, the combination of main body portion A, block or top piece B, free fore part C, central slide piece D, and key piece E, with interlocking points and means for securing the whole in fixed relative positions and of allowing the ready removal of the internal or centrally situated parts, as set forth.

No. 44,112. Safety Lock. (*Serrure de sûreté.*)

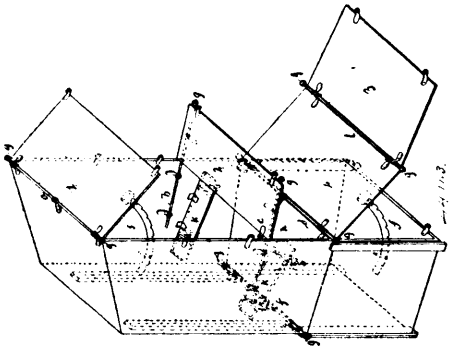


Felix Schneider, Dresden, Saxony, Germany, 29th August, 1893 ; 6 years.

Claim.—1st. In a lock, the case thereof having circular sides, a knob having a corresponding circular recess of a size to admit knob

to slide over lock, said knob having an annular groove on the periphery of the circular recess therein, into which a spring projects automatically when knob is slid over lock, substantially as shown and described. 2nd. In a lock, the combination of the knob *r*, of the lock having a spring Z, projecting into groove in knob, when slid over same, and the knob released from lock by depressing the spring Z, from groove by means of a key, substantially as shown and described.

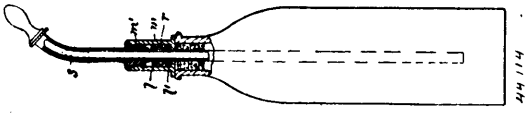
No. 44,113. Combined Chair and Basket.
(*Chaise et panier combinés.*)



Felix Schneider, Dresden, Saxony, Germany, 29th August, 1893; 6 years.

Claim.—In a combination chair and basket, consisting of one or more baskets having detachable lids or covers, means for connecting said baskets together and for regulating and affixing said covers in connection with the baskets in such a manner as to form a covered chair, substantially as herein shown and described.

No. 44,114. Feeding Bottle. (*Biberon.*)



Richard Turck, Ludenscheid, Germany, 29th August, 1893; 6 years.

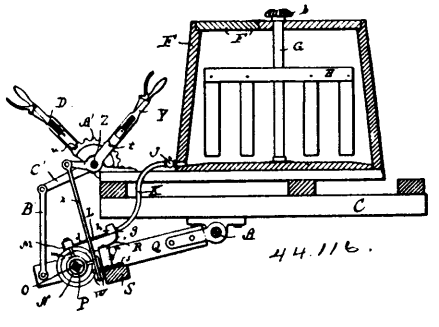
Claim.—1st. In feeding bottles, a suction tube composed of two halves or lengths of which the upper half projecting over the bottle is sheated or coated with tin or other suitable protective metal, provided with slots, substantially as described and for the purposes specified. 2nd. In a feeding bottle, having a suction tube composed of two halves or lengths, the means of connecting the said halves and forming a tight joint, one tube end being introduced into the other and the joint surrounded with a muff or cap *m* which contains a pair of packing rings and is surmounted with a sleeve *m*, adapted to press the two halves together, substantially as specified.

No. 44,115. Facing for Moulds. (*Revêtement de moule.*)

James Seymour Phillip Stutley, Adelaide, South Australia, 30th August, 1893; 6 years.

Claim.—The application to moulds used in casting metals and more particularly iron and steel, of a natural substance or material obtained from a mineral known as soap stone, steartite or steatite, substantially as described and for the purpose indicated.

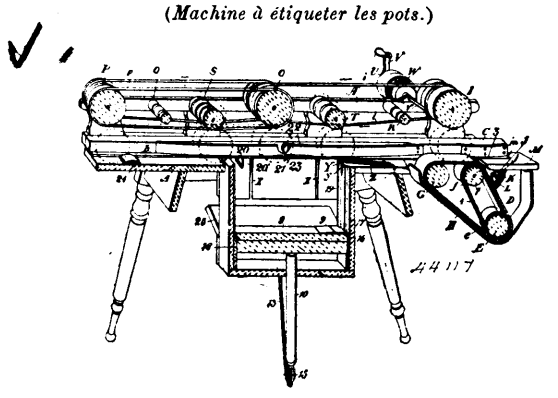
No. 44,116. Sprinkler. (*Arrosoir.*)



Jacob Ray Steitz, Cudahy, Wisconsin, U.S A., 30th August, 1893; 6 years.

Claim.—1st. The combination with a carriage, a receptacle mounted thereon, a pair of spraying brushes in frictional contact, a radially channelled shield having its discharge end over one of the brushes, and tubes leading from the receptacle to the shield, substantially as set forth. 2nd. The combination of a suitable receptacle, a pair of spraying brushes in frictional contact, a shield positioned to have its rear end over one of the brushes, a series of radiating plates set on edge upon the shield, and a tubular connection between said shield and receptacle, substantially as set forth. 3rd. The combination of a suitable receptacle, a pair of spraying brushes in frictional contact, a shield positioned to have its rear end over one of the brushes, a slotted cup on the shield, having a tubular connection with the receptacle, and a series of plates set on edge upon the shield to radiate from the cup, substantially as set forth.

No. 44,117. Can-Labelling Machine.
(*Machine à étiqueter les pots.*)

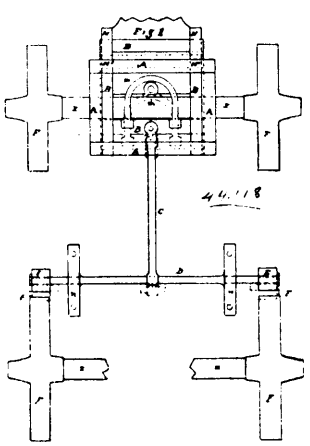


Francis Haner Gaudric, Port Hope, Ontario, Canada, 30th August, 1893; 6 years.

Claim.—1st. The method herein described of attaching labels to cans which consists in applying a layer of paste to portion of the periphery of the can, and then rotating the can over the label so that one end of the label adheres to portion of the layer, while the other end, as the can is passed along, adheres to the other portion of the layer, so as to completely cover the can with the label, as and for the purpose specified. 2nd. In a can labelling machine, the combination with the track having parallel rails and a label receptacle intervening the rails, of an endless pasting belt H, carrying paste from the paste receptacle D, and means whereby the can is brought over the horizontal portion of the pasting belt, labels in the label receptacle, and discharged at the opposite end of the machine, as and for the purpose specified. 3rd. In a can labelling machine, the combination with the track having parallel rails, and a label receptacle intervening the rails, of an endless pasting belt H, passing over the three rollers E, F and G, the rollers E and F being connected together by the belt 4, passing over the annular grooves *e* and *f* in the rollers, and the roller F being driven through the pulley 5, cross belt 6, and pulley 7, on the end of the spindle *o*, of the intermediate roller O, as and for the purpose specified. 4th. In a can labelling machine, the combination with the track having parallel rails, and a label receptacle said intervening rails, of an endless travelling pasting belt H, carrying paste from the paste receptacle D, and an adjustable scraper K, extending downwardly at an incline into proximity with the upwardly moving portion of the belt H, and means whereby the can is brought over the horizontal portion of the pasting belt, label in the label receptacle, and discharged at the opposite end of the machine, as and for the purpose specified. 5th. The combination with the track having parallel rails, and a label receptacle intervening said rails, of an endless travelling pasting belt H, carrying paste from the paste receptacle D, a slide M, forming a continuation of the track and enclosing the top of the paste receptacle, and means whereby the can is brought over the horizontal portion of the pasting belt, labels in the label receptacle, and discharged at the opposite end of the machine, as and for the purpose specified. 6th. The combination with the track having parallel rails, and a label receptacle intervening said rails, and a paste belt located at the feeding end of the machine, of a feed roller I, connected by belts *i*, to the intermediate roller O, connected by the belt *p*, of the roller P, and compression rollers S and T, preferably situated at a point above and near the ends of the label receptacle, as and for the purpose specified. 7th. The combination with the track having parallel rails, and a label receptacle intervening said rails, and a paste belt located at the feeding end of the machine, of feed and carrying rollers and belts as specified, guide bars C, and spring bar 22, arranged as shown and for the purpose specified. 8th. The combination with the track having parallel rails, and a label receptacle intervening said rails, and a paste belt located at the feeding end of the machine, of feed and carrying rollers and belts as specified, guide bars 22, and spring fingers X, secured to one side of the label receptacle, and extending to the top of the same, as and for the purpose specified. 9th. The combination with the track having parallel rails, a pasting belt and rollers for feeding the can through the machine, of a label receptacle having a yielding bottom or plunger 9, and a cross bar 20, extending across the label receptacle in

proximity to the end of the label receptacle next to the discharge end of the machine, as and for the purpose specified. 10th. The combination, with the track having parallel rails, a pasting belt and rollers for feeding the can through the machine of a label receptacle having a yielding bottom or plunger 9, and vertical knives 20, arranged at each side of the label receptacle in proximity to the end of the receptacle near the discharge end of the machine, as and for the purpose specified. 11th. The combination, with the track having parallel rails, a pasting belt and rollers for feeding the can through the machine of a label receptacle having a yielding bottom or plunger 9, and a cross bar 20, and vertical knives 20^1, arranged as and for the purpose specified. 12th. The combination, with the track having parallel rails, a pasting belt and rollers for feeding the can through the machine, of a label receptacle having a yielding bottom or plunger 9, and an opening provided at the side of the receptacle beneath the table, which is provided with a hinged flap 25, arranged as and for the purpose specified. 13th. The combination, with the track having parallel rails, a pasting belt and rollers for feeding the can through the machine, of a label receptacle having vertical side strips 18, and end strips 19, and a yielding bottom or plunger 9, provided with end tongues 16, which move in vervical grooves 17, at the end of the receptacle as and for the purpose specified. 14th. The combination, with the track having parallel rails, a pasting belt and rollers for feeding the can through the machine, of a label receptacle having a yielding bottom or plunger 9, designed to receive the pile of labels and spring fingers Y, having turned down ends y, situated at the end of the label receptacle next to the feeding end of the machine, as and for the purpose specified. 15th. The combination, with the track having parallel rails, a pasting belt and rollers for feeding the can through the machine, of a label receptacle having a yielding bottom or plunger 9, and a spring finger with a flat thin end projecting slightly over the label receptacle at the end nearest the feeding end of the machine, as and for the purpose specified. 16th. The combination, with the track having parallel rails, a pasting belt and rollers for feeding the can through the machine, of a label receptacle provided with a yielding bottom or plunger 9, intervening the rails and spring pad 24, arranged nearest the discharge end of the machine and also intervening the rails, as and for the purpose specified. 17th. The combination, with the track having parallel rails, a pasting belt and rollers for feeding the can through the machine, of a label receptacle having a yielding bottom or plunger designed to receive the pile of labels, and segment pieces 21, located upon the rails on each side at the top of the label receptacle, as and for the purpose specified.

No. 44,118. Brake for Vehicles. (*Frein de voiture.*)



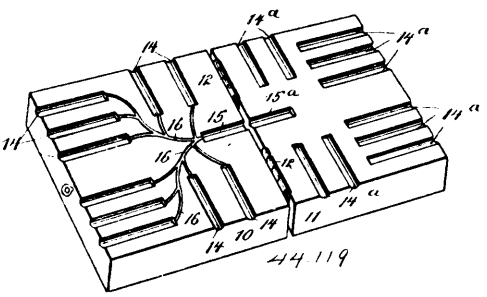
Henry D. Woodworth, Berwick, Nova Scotia, Canada, 30th August, 1893; 6 years.

Claim.—The brake lever D, with the brake blocks E, connected with the frames A, A, A, A, and B, B, B, B, by means of the connecting bar or rod C, substantially as and for the purpose hereinbefore set forth.

No. 44,119. Fuse Igniter. (*Allumoir de fusée.*)

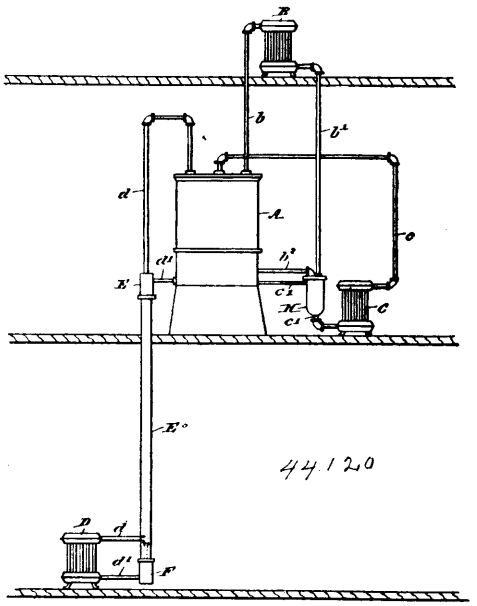
William J. C. Doyle and Timothy Buckley, both of Rochester, New York, U.S.A., 30th August, 1893; 18 years.

Claim.—1st. A fuse igniter, comprising a two-part body having registering grooves therein adapted to hold fuses, branch grooves connecting the fuse holding grooves, and a fastening device to hold the parts of the body together, substantially as described. 2nd. A fuse igniter comprising a two-part body, the members of which are hinged together and provided with a suitable fastening, a series of fuse holding grooves produced in the body and extending to the sides thereof, and branch grooves connecting the fuse holding grooves, substantially as described. 3rd. A fuse igniter comprising two hinged members having registering grooves or recesses therein adapted to hold fuses, branch grooves connecting the fuse holding grooves, and a fastener consisting of an eye bolt held to one member,



the two members having slots into which the eye bolt is adapted to be swung, and the eye bolt carrying a securing nut, substantially as described.

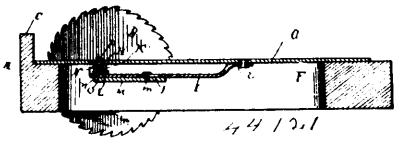
No. 44,120. Water Heater. (*Calorifère à eau.*)



David L. Dwinnell and the firm of Miller Brothers & Toms, Quebec, Canada, 30th August, 1893; 6 years.

Claim.—1st. In a hot water heating system, the improvement which consists in inductively or extraneously heating the returns from distributing points on the same level as and below the heater. 2nd. In a hot water heating system, the improvement which consists in inductively or extraneously heating the returns from distributing points on the same level as and below the heater by passing the feed stream (enclosed through the return or the return stream, enclosed) through the feed for a portion of their length, as set forth. 3rd. In a hot water heating system, the improvement which consists in inductively or extraneously heating the returns from distributing points on the same level as and below the heater by inserting the return stream, enclosed, from a higher, distributing point into the return stream from a lower distributing point, as set forth. 4th. In a hot water heating system, the combination with the heater, and radiators of feed and return pipes the former enclosing the latter for a portion of their length, as shown and described. 5th. In a hot water heating system, the combination with the heater and radiators, of feed and return pipes, and fittings divided into two compartments respectively communicating with feed and return pipes, as shown and described. 6th. In a hot water heating system, the combination with the heater A, radiator D and feed and return pipes d d^1, of fittings E F divided by diaphragm g into two compartments f f^1, respectively communicating with the feed and return pipes d d^1, and the feed and return pipes E^1 E^2 and E^3 of differing diameters and lengths nested together connecting said fittings and communicating with the compartments therein, as set forth. 7th. In a hot water heating system, the combination with the heater A and radiators B and C, feed and return pipes b b^1 b^2, c c^1 of tubular section H located in the return pipe from radiator C and diaphragmed tubular section H^1 forming a part of the return from the radiator B and inserted in the said tubular section H, for the purpose set forth.

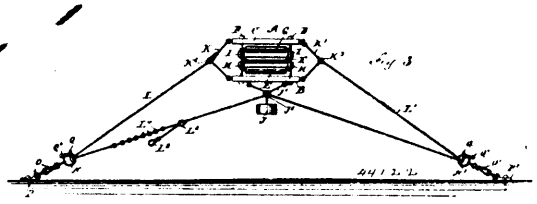
No. 44,121. Shingle Marker. (*Marque-bardeau.*)



John T. Rush, John G. McCamant and Caleb Guyer, all of Tyrone, Pennsylvania, U.S.A., 30th August, 1893; 6 years.

Claim.—1st. In a shingle marker, the combination of an attachment plate or table having a slot or opening, a gage board arranged at one end of said plate or table, a spring arm secured at one end to the under side of the plate or table, a clamp adjustably attached to said spring arm, and a marking block or stick removably held in position between said clamp and the spring arm, said block or stick normally projecting through the slot or opening in the attachment plate or table, substantially as set forth. 2nd. In a shingle marker, an attachment plate or table having a slot or opening, the gage board arranged at one end of said plate or table a spring arm secured at one end to the under side of said plate or table and provided with a longitudinally disposed slot and an end clamping arm having a threaded perforation, a sliding clamping plate having a retaining pin working in the slot in said spring arm and a right angularly disposed clamping arm lying parallel to the clamping arm of the spring and having a perforation, a clamping screw engaging the perforations of both clamping arms, and a marking block or stick clamped between said clamping arms and normally projected through the slot or opening in the attachment plate or table, substantially as set forth.

No. 44,122. Belt Holder. (*Porte-courroie.*)



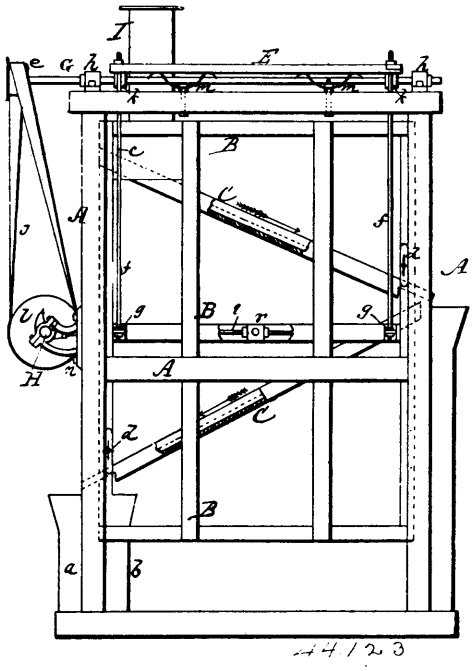
William F. Cleveland, Rownthwaite, and William Cowan, Brandon, both of Manitoba, Canada, 30th August, 1893; 6 years.

Claim.—1st. A belt holder comprising a weighted frame, ropes connected with the said frame and adapted to be connected with keepers secured in the ground to hold the frame in position, a top roller journalled in the said frame and under which passes the upper part of the endless belt, a bottom roller journalled in the said frame and over which passes the lower part of the belt, a middle roller journalled in the said frame and located in a vertical plane passing through the centres of the top and bottom rollers to prevent the two parts of the belt from striking each other, and end rollers journalled in the said frame at the sides thereof, and adapted to be rotated by the said top, bottom or middle rollers or the belt, substantially as shown and described. 2nd. A belt holder comprising a weighted frame, supporting a series of horizontally extending rollers, a second series of vertical rollers, and tightening ropes connected with the said weighted frame at the sides and bottom, substantially as shown and described. 3rd. A belt holder comprising a weighed frame, supporting a series of horizontally extending rollers, a second series of vertical rollers, tightening ropes connected with the said weighted frame at the sides and bottom, clamping rings through which pass the said ropes, snap hooks connecting the said rings with keepers attached to the ground, and clamping devices in the said rings for fastening the ropes in place, substantially as shown and described. 4th. A belt holder comprising a weighted frame, supporting a series of horizontally extending rollers, a second series of vertical rollers, tightening ropes connected with the said weighted frame at the sides and bottom, one of the said tightening ropes passing through a ring in the other rope, and a snap hook on the end of the rope to engage one of a series of rings on the said rope, substantially as shown and described.

No. 44,123. Bolting Apparatus. (*Blutoir.*)

Colin Francis Hurdy and Lester Mason Godley, both of Scottsville, New York, U.S.A., 30th August, 1893; 6 years.

Claim.—1st. In a bolting apparatus, the combination with the shaker B, of a suspension frame E, located above the machine, hangers *f*, *f*, connecting the shaker with the frame, eccentrics *o*, *o*, attached to a shaft H, for imparting horizontal vibrations to the shaker, and other eccentric *i*, *i*, attached to a shaft G, for imparting vertical vibrations to the shaker, as specified. 2nd. In a bolting apparatus, the combination with the shaker B, of a suspension frame E, located above machine, hangers *f*, *f*, connecting the shaker with the frame, eccentrics *o*, *o*, and *i*, *i*, attached to suitable shafts for imparting horizontal and vertical vibrations to the shaker, and a set of springs *m*, *m*, interposed between the suspension frame and a



stationary part for equalizing the action, as herein shown and described. 3rd. In a bolting apparatus, the combination with the main frame A, and shaker B, of a suspension frame E, located above the main frame, hangers *f*, *f*, connecting the shaker with the suspension frame, eccentrics *o*, *o*, and *i*, *i*, attached to shafts imparting horizontal and vertical vibrations to the shaker, a hopper I attached to the main frame, another hopper K attached to the shaker, with flexible flaps covering the space between the two, a hinged valve *u*, at the bottom of the lower hopper, and a spring *v*, for holding the valve against internal pressure, as and for the purpose specified. 4th. The combination of the hopper I, attached to the main frame, the hopper K attached to the shaker, the flexible flaps *t*, *t*, closing the space between the hoppers, the valve *u*, at the bottom of the lower hopper, the springs *v*, *v*, for closing the valve, and the slides *w*, *w*, for adjusting the springs, as described.

No. 44,124. Cigar and Cigarette. (*Cigare et cigarette.*)

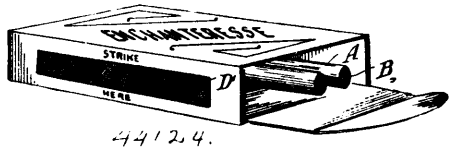


Fig. 3.

Herbert Leslie Manton and John Paterson, both of Melbourne, Australia, 30th August, 1893; 6 years.

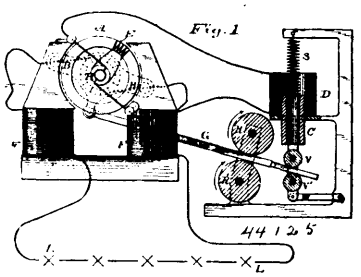
Claim.—1st. Mounting the end of the cigar or cigarette with a cap, daub or preparation of a suitable lighting or igniting compound such as is used in matches, as and for the purposes described. 2nd. Affixing a prepared surface of frictional material upon a portion of the paper strap or title label, usually placed around cigars, for the purpose of enabling a specially prepared end of a cigar to be ignited thereon, and for the purposes described. 3rd. The combination with a cigar or cigarette having an end prepared with an approved match composition, of a strap or title label as "D," having a portion of its surface prepared or daubed with an approved frictional material as and for the purposes described.

No. 44,125. Dynamo Electric Machine.
(*Machine dynamo électrique.*)

Elihu Thomson, Swampscott, Massachusetts, U.S.A., 31st August, 1893; 6 years.

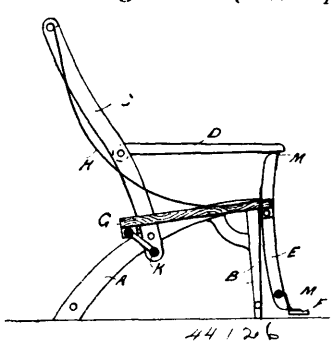
Claim.—1st. In a regulator for constant current, means for taking current from a section only of the armature winding irrespectively of the main current connections, a device responding to the current so taken up, an electro magnetic mechanism controlled thereby for shifting the brushes of the machine connected to the main circuit to positions on the commutator at which constant currents are taken

up. 2nd. In a direct current dynamo electric machine in which the main current is passed through the field magnet coils for excitation,



a shifting commutator therefor with mechanism for shifting the commutator to positions at which the brushes take up a constant or standard current, in combination with mechanism responsive to the variations of current in a circuit independent of the main circuit of the machine, said mechanism controlling the shifting commutator, so that the current flowing in the circuit as fed from the brushes of the commutator shall be substantially constant. 3rd. The combination in a dynamo electric machine, of an accessory armature circuit taken from a portion only of the armature winding, devices responding to variations of current taken from said section, and mechanism controlled by said responsive device to shift the brushes on the commutator to positions at which the current taken up and carried to the main circuit shall be constant. 4th. In a dynamo electric machine, in addition to the ordinary armature winding and commutator, a separate coil or section of wire wound on the armature, with means for collecting current therefrom independent of the main circuit, a device responding to the current in said separate section, and mechanism controlled thereby for shifting the brushes on the main commutator or collector, so that the current taken up therefrom shall be constant.

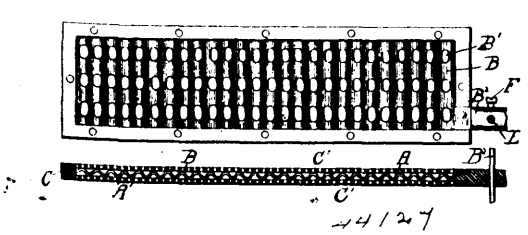
No. 44,126. Reclining Chair. (*Fauteuil pliant.*)



William Martin Watson and Francis Albert Linton, both of Brantford, Ontario, Canada, 31st August, 1893; 6 years.

Claim.—1st. A self balancing reclining chair having a seat G balanced and pivoted as described and fully set forth, and as adapted to such reclining chair either by itself or in combination with hinged joints M and foot rest F, as fully set forth. 2nd. The lever or crank K, as adapted to a seat G, of a self balancing reclining chair, as fully set forth. 3rd. The swivel bar L, as adapted to a seat G, of a self balancing reclining chair, as fully set forth. 4th. A hinged foot board or rest F, as adapted to a self balancing reclining chair, and also in combination with the balanced seat G, and hinged joints M, as fully set forth. 5th. The hinged joints M, as adapted to the parts of a self balancing reclining chair, and also in combination with the balanced seat G, and foot rest F, as fully set forth.

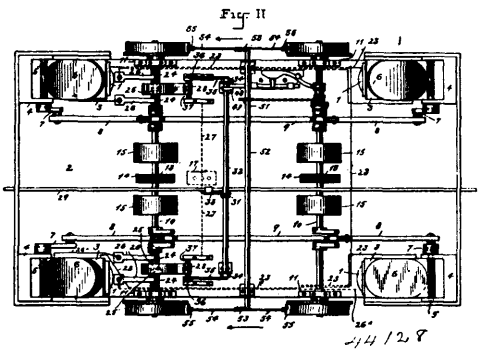
No. 44,127. Secondary Battery. (*Pile secondaire.*)



Sigmund Adolf Rosenthal and Villeroy Corney Doubleday, both of London, England, 31st August, 1893; 6 years.

Claim.—A secondary battery element, consisting of a perforated flat or corrugated lead plate B, containing the active material on both sides and in the perforations, in combination with an enclosing box of suitable insulating material consisting of a strong frame C, and thin perforated sides or covers C^1, C^1, united thereto, the frame having a recess for the tang B^2, which has shoulders supported against the frame, substantially as described

No. 44,128. Electric Brake. (*Frein électrique.*)



William Lawrence, New York City, U.S.A., 31st August, 1893; 6 years.

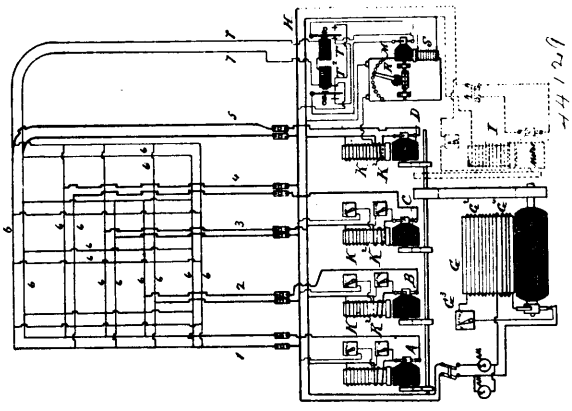
Claim.—1st. An improved brake mechanism, consisting of a drum slidably and rotatably mounted on a shaft, a recessed shoulder mounted upon and secured to said shaft, the said drum having one end tapered and adapted to engage with the recess in said shoulder, a ring also mounted on the shaft and adapted to bear against the drum, the said ring having a groove on its outer surface to receive the forked end of a lever, the said lever being pivoted on a plate and having an inclined shoulder for engagement with a wheel mounted in a slidable bar, the said lever adapted to be moved laterally by said wheel and bar, thereby causing a friction between the drum and shoulder, substantially as and for the purpose set forth. 2nd. An improved brake mechanism, consisting of a drum slidably and rotatably mounted on a shaft, a recessed shoulder mounted upon and secured to said shaft, the said drum having one end tapered and adapted to engage with the recess in said shoulder, a ring also mounted on the shaft and adapted to bear against the drum, the said ring having a groove on its outer surface to receive the forked end of a lever, the said lever being pivoted on a plate and adapted to be operated by a chain or its equivalent, by means of an ordinary brake lever, substantially as shown and described. 3rd. In a brake mechanism, the combination of a shaft, a friction clutch thereon, a brake and its supporting bar, a connection bar, a connection between said brake bar and said clutch, and means for moving said clutch, as and for the purposes specified. 4th. In a brake mechanism, the combination of a shaft, a clutch thereon, a brake bar connected therewith, and an eccentric connected with said clutch for operating it, substantially as described. 5th. In a brake mechanism, the combination of a shaft, a clutch thereon, a lever to operate it, a sliding bar, an eccentric between said lever and said bar, for moving the former by the latter, a brake and connections between said brake and said clutch, substantially as described. 6th. A magnet combined with an armature and a magnet caused by said armature to increase the attraction power between the magnet and armature, substantially as specified. 7th. The combination of a magnet, an arm or lever connected therewith, a drive rod and crank shaft, substantially as described. 8th. The combination of a magnet and its armature, with a plate 16, located between them, substantially as described. 9th. The combination, of a commutator contact 25, and brush 26, with forked brushed 28, adapted to be engaged by said contacts, and means for moving either of said brushes into engagement with said contact, substantially as described. 10th. The combination, of a commutator contact 25, and brush 26, with brushes 28, and rocking shaft for moving said brushes into engagement with said contact, substantially as described. 11th. The combination, of a commutator contact 25, and brush 26, with brushes 28, and a shaft connected therewith for operating them, a rod connected with said shaft and a lever for operating said rod, all arranged, substantially as shown and described. 12th. The combination, of a commutator contact 25, and brush 26, with forked brushes 28, arm 36, connected therewith, rod 35, shaft 32, arm 33, rod 29 and lever 30, all arranged and operating as and for the purposes specified. 13th. The improvements in electric machines for traction and stationary purposes, hereinbefore described, set forth and illustrated in the drawing annexed.

No. 44,129. System of Electric Distribution.
(*Système de distribution électrique.*)

Cyprien O. Mailloux, New York City, New York, U.S.A., 31st August, 1893; 6 years.

Claim.—1st. In a system of electric distribution, the combination, with the consumption circuit or circuits and the feeder wires or conductors connected to the various points thereof and supplied from

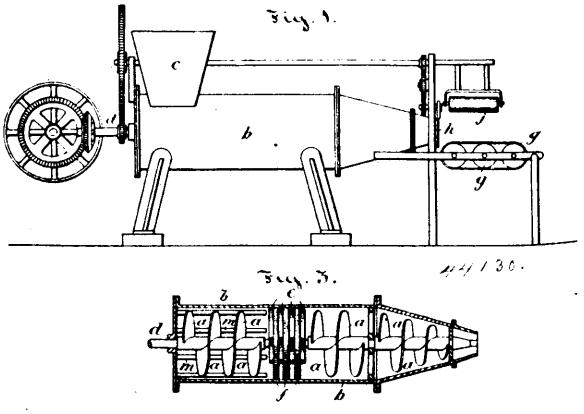
common generator or generators, of a supplemental or auxiliary electro-motive force generator or generators in circuit of feeder wire



or wires, and operating normally or at full load with an electro-motive force counter or assisting and adjusted with respect to the relative drop in the feed wires or conductors to produce at full load a resultant drop necessary for the pressure or potential derived at the point of connection to the consumption circuit or circuits. 2nd. The combination in a system of electric distribution, of a consumption circuit or circuits, a main generator or generators, feed wires or conductors connected to the parts of the system at different distances from the main generator or to parts having normally different loads, and a supplemental electro-dynamic machine or machines having armatures in a feeder wire circuit or circuits and normally adjusted and applied in the manner described to oppose or assist the electro-motive force of the main machine, as and for the purpose described. 3rd. The combination in a system of electric distribution, of the consumption circuit or circuits, feed wires or conductors leading to different parts thereof from a common source, and a supplemental or auxiliary electro-motive force generator or generators included in said feeder wires, and having a normal action at full load adjusted with respect to the relative drop in said feeders, as and for the purpose described. 4th. In a system of electric distribution, the combination, with the consumption circuit or circuits, of feeder wires having a greater normal, drop or loss for the portions of the system more remote from the source of supply or having a normally less load, and a less drop for the portions nearer to the source of supply or having a greater load, and a supplemental source of electro-motive force in the circuit of a feeder wire and adjusted in the manner described with respect to the differences in the loss on the feeders so as to produce on the consumption circuits the required normal relation of potential at the points of connection with the feeder circuits. 5th. The combination in a system of electric distribution, of a consumption circuit or circuits, feeder wires having a greater normal resistance drop or loss for the portions of the system more remote from the source of supply, and a less drop for the portions nearer to the source, and a supplemental assisting electro-motive force generator in the feeder wire connected to the more distant portion of the system, as and for the purpose described. 6th. The combination in a system of electric distribution, of a consumption circuit or circuits, feeder wires connecting the same with a source of energy, and an electro-dynamic machine or machines having armatures operating either as motors or generators, and included individually in the circuits of separate feeder wires, as and for the purpose described. 7th. The combination in a system of electric distribution, of a consumption circuit or circuits, feeder wires connecting the same with a suitable source of supply, and an electro-dynamic armature operated as an electric motor armature in the circuit of a feeder wire and furnishing driving power to assist in operating a generator armature or armatures supplying electric energy tending to raise the potential of the system. 8th. The combination substantially as described, in a constant potential system of electric distribution, of a consumption circuit or circuits, feeder wires or conductors connected to different parts of the same, a generator or generators common to said feeder wires and adapted to maintain the required difference of potential at the common terminals of the feeder wires, and electro-dynamic armatures included individually in feeder wires of the system and each provided with means for automatically adjusting its power according to the variations of load on its own feeder wire. 9th. The combination in a system of electric distribution, of the consumption circuits, the feeder wires connecting the same with a common source of energy, and electro-dynamic armatures placed individually in the feeder wires and operating either as motor or generator armatures, each of said machines being provided with means for automatically adjusting its field in accordance with changes of load of its own feeder. 10th. The combination in a system of electric distribution, of the consumption circuit or circuits, feeder wires or conductors connecting the same with a suitable source of energy, a supplemental electro-motive force generator placed in a feeder wire and normally adjusted with respect to the relation of drop between itself and another feeder due to a resistance, and means for automatically changing its electro-motive force capacity according to the variations of load at a part of the consumption circuit or circuits. 11th. In a system of electric distribution, the combination with the consumption circuit or circuits and the feeder wires or conductors connecting the same with a common source of electric energy, and one or more supplemental armatures placed individually in the feeder circuits, and having field magnet coils traversed respectively by an approximately constant current and by the current flowing over the feed wire and through the armatures, as and for the purpose described. 12th. The combination in a system of electric distribution, of the consumption circuit or circuits, feed wires or conductors connecting the same with a common source of energy, electro-dynamic armatures connected into said feeder circuits and part operating as motors and part as generators, said motor armatures furnishing driving power to assist in operating the generator armatures. 13th. The combination, substantially as described, in a system of electric distribution, of the consumption circuit or circuits, the feeding wires or conductors connected with a common source of energy, electro-dynamic machines having their armatures included in the feeder wires or circuits, and adjusted as described to supply an electro-motive force assisting or opposing the main electro-motive force and in accordance with the drop required in the feeder wires, said armatures and the main generator being inter-connected as described, so that the energy absorbed in the armatures opposing the main electro-motive force and converged into motive power therein will tend to drive the supplemental generator armatures, as and for the purpose described. 14th. In a system of electric distribution, the combination, substantially as described, of the feeder wires or conductors connected to constant potential circuits, a source or sources of energy common to said feeders, and from which they branch separately, and supplemental electro-motive force generators in said feeder branches, and each provided with means for automatically adjusting its potential in accordance with changes of load on its own feeder independently of the changes on other feeders. 15th. The combination in a system of electric distribution, of an electro-dynamic armature operating as a supplemental electro-motive force generator, and placed in a feeder wire between the main generator and the consumption circuit, a field magnet therefore having a main circuit coil in the feeder wire, an independent field magnet coil, and a controlling magnet or magnets for adjusting the effect of said independent coil, said magnet or magnets being in a pressure wire connected to the consumption circuit at or near the point where the feeder wire is attached.

No. 44,130. Method of Preparing Peat, etc.

(*Méthode de préparer la tourbe, etc.*)

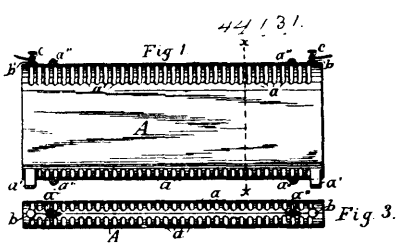


Osmond Gilles Bluden, 180 Cambridge Street, Warwick Square, Middlesex, England, 31st August, 1893; 6 years.

Claim.—1st. In a machine for preparing peat or turf for use as fuel, the combination of rotary knives or cutters acting against fixed cutting blades *f*, and screw *a*, part of which is tapered, and the end of the axis of which forms a revolving core, and a casing *b*, provided with longitudinal ribs *m*, inside one end, and part of which is cylindrical and part conical, substantially as and for the purpose hereinbefore set forth and described. 2nd. In a machine for preparing peat or turf for use as fuel, the extension of the end of the shaft or axis of the screw blade referred to for the purpose of serving as a core to a form an opening through the fuel, substantially as and for the purpose hereinbefore set forth and described. 3rd. In a machine for preparing peat or turf for use as fuel, the formation of a number of longitudinal ribs or ridges upon the inside of one end of the cylindrical casing, substantially as and for the purpose hereinbefore set forth and described.

No. 44,131. Electric Heater.

(*Calorifère électrique.*)



Mark Wesley Dewey, Syracuse, New York, U.S.A., 31st August, 1893; 6 years.

Claim.—1st. In an electric heater, a support, a plate on the support, saddles of insulating material on two edges of the plate, and a resistance conductor wound around the plate alternately across opposite planes thereof, as and for the purpose described. 2nd. In an electric heater, a support, a rectangular plate, having its opposite extremities held by said support, saddles of insulating material on two edges of the plate, and a resistance conductor wound around the plate alternately across opposite planes thereof, as and for the purpose described. 3rd. In an electric heater, a support, a metal plate held at or near its corners by the support, saddles of insulating material on two edges of the plate, and a resistance conductor wound around the plate, as and for the purpose described. 4th. In an electric heater, a support, a plate held by said support, round or chamfered edges on said plate, saddles of insulating material on two edges of the plate, and a resistance conductor wound around the plate alternately across opposite planes thereof, as and for the purpose described. 5th. In an electric heater, a support, a plate held by said support, two electric terminals or binding screws secured to the plate, saddles of insulating material on two edges of the plate, and a resistance conductor wound around the plate and saddles, as and for the purpose described. 6th. In an electric heater, a support, a metal plate held by said support, two electric terminals or binding screws secured to, but insulated from the plate, saddles of insulating material on two edges of the plate, and a resistance conductor wound around the plate and saddles, as and for the purpose described. 7th. In an electric heater, a support, a body held by the support, saddles of insulating material in sections on each of two opposite edges of said body, and a resistance conductor wound around the body and saddles, as and for the purpose described. 8th. In an electric heater, a support, a metallic body held by the support, saddles of porcelain in sections on each of two opposite sides of said body, and a resistance conductor wound around the body and saddles, as and for the purpose described. 9th. In an electric heater, a support consisting of a case or screen, enclosing the resistance conductor, made in two parts, holding devices at each end of the case, a body around which the resistance conductor is wound between said holding devices, apertures between the parts of the case, and electric terminals connected to the ends of the resistance conductor and extending through the case between the two parts thereof, as and for the purpose described. 10th. In an electric heater, a support consisting of a case or screen enclosing the resistance conductor, made in two parts, perforations in the bottom and top of the case, holding devices at each end of the case, a body around which the resistance conductor is wound between said holding devices, and electric terminals connected to the ends of the resistance conductor and extending through the case between the two parts thereof, as and for the purpose described. 11th. In an electric heater, a support consisting of a case or screen, enclosing the resistance conductor, made in two parts, slots in the bottom, top and sides of the case, holding devices at each end of the case, a body, around which the resistance conductor is wound between said holding devices, and electric terminals connected to the ends of the resistance conductor and extending through the case between the two parts thereof, as and for the purpose described. 12th. In an electric heater, a support for the resistance conductor, made in two consisting of a vitrified body U-shaped in cross section and notches or teeth on the body to keep the convolutions apart. 13th. In an electric heater, a metal plate, a perforation near the end of the plate, a binding screw, a yoke secured thereto and extending on both sides of the plate, a screw connecting the ends of the yoke through the perforation, and an insulating bushing to insulate the yoke and screw from the metal plate. 14th. In an electric heater, a slotted case made in two parts, a body or bodies of insulating material supported in and by the ends of the case, a resistance conductor around the body or bodies of insulating material, conductors leading to the interior of the case between the two parts, and screws or bolts extending through the parts of the case to hold them together and thereby to hold the said body or bodies in position within the case. 15th. In an electric heater, a slotted case made in two parts, a body or bodies of insulating material supported in and by the ends of the case, a resistance conductor around the body or bodies of insulating material, conductors leading to the interior of the case between the two parts, insulating rings between the said parts, and screws or bolts extending through the parts of the case to hold them together and to hold the said body or bodies in position within the case and also the insulating rings. 16th. In an electric heater, a support consisting of a case or enclosure divided longitudinally in two parts, supports or holding devices on the interior of the case, a plate or thin body held by said devices parallel to and in the plane of the meeting edges of the parts of the case, a resistance conductor wound around the plate, supply conductors leading through the case to the terminals of said resistance conductor, and means to hold the parts of the case together and the plate or thin body in position. 17th. In an electric heater, a shield enclosing a resistance conductor, a separate body traversed by and affording support to said conductor, said shield being provided with an air inlet and outlet, one above the other, holding devices within said shield supporting said body, and electric terminals connected to the ends of the resistance conductor and extending to the exterior of the shield. 18th. In an electric heater, a shield enclosing a resistance conductor, a separate body which extends throughout the main portion of its length longitudinally with and in close proximity to said conductor, said shield being provided with an air inlet and outlet, one above the other, holding devices within said shield supporting body, and electric terminals connected with the ends of the resistance conductor and extending to the exterior of the shield.

CERTIFICATES OF THE PAYMENT OF FEES FOR FURTHER TERMS HAVE BEEN ATTACHED TO THE FOLLOWING PATENTS.

3059. EMIL C. BOECKH and CHARLES BOECKH, 2nd five years of No. 29,608, from the 1st day of August, 1893. Improvements in the Manufacture of Scrubbing Brushes, 1st August, 1893.

3060. THE STANDARD HORSE NAIL COMPANY (assignees), 2nd five years of No. 29,646, from the 7th day of August, 1893. Improvements in Nail Finishing Machines, 1st August, 1893.

3061. THADDEUS HODGSON, 3rd five years of No. 19,887, from the 2nd day of August, 1894. Improvements in Shingle Machines, 1st August, 1893.

3062. ALEXANDER DUNBAR, 2nd five years of No. 29,648, from the 7th day of August, 1893. Machine for Making Casks and Barrels, 2nd August, 1893.

3063. GEORGE SANDERSON, 2nd five years of No. 29,630, from the 2nd day of August, 1893. Improvements in Brake Shoes, 2nd August, 1893.

3064. GEORGE SANDERSON, 2nd five years of No. 29,631, from the 2nd day of August, 1893. Improvements in Brake Shoes, 2nd August, 1893.

3065. J. O. WISNER, SON & CO. (assignees), 2nd five years of No. 29,639, from the 4th day of August, 1893. Improvement in Hay Tedders, 4th August, 1893.

3066. J. O. WISNER, SON & CO. (assignees), 2nd five years of No. 29,650, from the 7th day of August, 1893. Improvement in Hay Tedders, 4th August, 1893.

3067. J. O. WISNER, SON & CO. (assignees), 2nd five years of No. 29,681, from the 17th day of August, 1893. Improvements in Spring Tooth Cultivators, 4th August, 1893.

3068. J. O. WISNER, SON & CO. (assignees), 2nd five years of No. 29,781, from the 13th day of August, 1893. Improvement in Spring Tooth Cultivators, 4th August, 1893.

3069. HENRY BACON, 2nd five years of No. 29,807, from the 2nd day of September, 1893. Improvements in Gate Latches, 5th August, 1893.

3070. MANN'S BOUDOIR CAR COMPANY (assignees), 2nd five years of No. 29,662, from the 8th day of August, 1893. Improvements in Ventilating Apparatus, 7th August, 1893.

3071. FREDERIC SMITH, 2nd five years of No. 29,689, from the 20th day of August, 1893. Improvements in Wine Drawing Machines, 11th August, 1893.

3072. HENRY CANIFF, 3rd five years of No. 17,515, from the 18th day of August, 1893. Improvements in Tubular Axles, 16th August, 1893.

3073. JAMES L. SPRAGUE, 2nd and 3rd six years of No. 43,838, from the 5th day of August, 1899. Improvements in Washing Machines, 16th August, 1893.

3074. GEORGE, JOHN G. and MARTIN O. REHFUSS, 2n five years of No. 29,724, from the 23rd day of August, 1893. Improvements in Machinery for making Barrel Staves, 16th August, 1893.

3075. THE FIRE EXTINGUISHER MANUFACTURING COMPANY (assignees), 2nd five years of No. 29,746, from the 27th day of August, 1893. Improvements in Fire Ladder Trucks, 18th August, 1893.

3076. THE ROYAL ELECTRIC COMPANY (assignees), 3rd five years of No. 17,661, from the 12th day of September, 1893. Improvements on Commutators for Dynamo Electric Machines, 19th August, 1893.

3077. THE ROYAL ELECTRIC COMPANY (assignees), 3rd five years of No. 17,662, from the 12th day of September, 1893. Improvements on Dynamo Electric Generators, 19th August, 1893.

3078. THE ROYAL ELECTRIC COMPANY (assignees), 3rd five years of No. 17,680, from the 15th day of September, 1893. Improvements on Flash Preventers for Electric Conductors, 19th August, 1893.

3079. THE ROYAL ELECTRIC COMPANY (assignees), 3rd five years of No. 17,758, from the 24th day of September, 1893. Improvements in Air Blast Attachments for Electric Machines, 19th August, 1893.

3080. AXEL. A. STROM, 2nd and 3rd five years of No. 43,999, from the 8th day of March, 1897. Improvements on Railway Switches, 22nd August, 1893.

3081. A. C. SMITH and VAN RENSSELAER POWELL, 3rd five years of No. 17,600, from the 10th day of September, 1893. Improvements on Horse Tail Holders, 22nd August, 1893.

3082. THE KAYSER PATENT COMPANY (assignees), 2nd five years of No. 29,851, from the 12th day of September 1893. Improvements in Process of making Alkaline Silicates and Carbonates, 30th August, 1893.

3083. THE KAYSER PATENT COMPANY (assignees), 2nd five years of No. 29,850, from the 12th day of September, 1893. Improvements in Process of making Alkaline Silicates, 30th August, 1893.

3084. THE CANADIAN RUBBER COMPANY (assignees), 2nd five years of No. 29,801, from the 1st day of September, 1893. Improvements in Rubber Boots and Shoes, 30th August, 1893.

3085. THOMAS B. RALSTON, 2nd five years of No. 29,790, from the 1st day of September, 1893. Improvements in and relating to Targets for Rifle Practice, 31st August, 1893.

3086. PETER McANEALY, 2nd five years of No. 29,793, from the 1st day of September, 1893. Improvements in Ploughs, 31st August, 1892.

TRADE MARKS

Registered during the month of August, 1893, at the Department of Agriculture—Copyright and Trade Mark Branch.

4713. LEON LARUE, Junior, of Montreal, Que. Cigarettes, 3rd August, 1893.

4714. DANIEL SCOTTEN AND OREN SCOTTEN, of Detroit, Mich., U. S. A., trading as DANIEL SCOTTEN & CO. All kinds of manufactured Tobacco except Cigars, 5th August, 1893.

4715. DANIEL SCOTTEN AND OREN SCOTTEN, of Detroit, Mich., U. S. A., trading as DANIEL SCOTTEN & CO. All kinds of manufactured Tobacco, 5th August, 1893.

4716. DANIEL SCOTTEN AND OREN SCOTTEN, of Detroit, Mich, U.S.A., trading as DANIEL SCOTTEN & CO. All kinds of manufactured Tobacco except Cigars and Cigarettes, 5th August, 1893.

4717. DANIEL SCOTTEN AND OREN SCOTTEN, of Detroit, Mich., U. S. A., trading as DANIEL SCOTTEN & CO. All kinds of manufactured Tobacco, 5th August, 1893.

4718. DANIEL SCOTTEN AND OREN SCOTTEN, of Detroit, Mich., U.S.A., trading as DANIEL SCOTTEN & CO. All kinds of manufactured Tobacco, 5th August, 1893.

4719. BRENER BROS., of London, Ont. Cigars, Cigarettes and Tobaccos, 7th August, 1893.

4720. BROWN & WEBB, of Halifax, N.S. Fruit Syrups, 7th August, 1893.

4721. DRAPER & LEITHEAD, of Vancouver, B.C. Cigars, 7th August, 1893.

4722. TASSÉ, WOOD & CO., of Montreal, Quebec. Cigars, 12th August, 1893.

4723. THOMAS C. WILKINSON, of Montreal, Que. Sauce, 12th August, 1893.

4724. M. B. FOSTER & SONS, Ld., of 27 and 29 Brook Street, Bond Street, London, England. Beer and Cider, 18th August, 1893.

4725. THE WALKER PHARMACAL CO., of St. Louis, Missouri, U. S. A. Medicinal Preparation used as an Anti-fat and Rheumaticide, 19th August, 1893.

4726. WILLIAM HARRISON & SONS, of St. Thomas' Works, Chester County, England. Hats, Caps and head covering generally, 21st August, 1893.

4727. GREENLEES BROS., of London, England. Scotch Whiskey, 23rd August, 1893.

4728. CALGARY BREWING AND MALTING CO., Ld., of Calgary, N. W. T. Ale, Beer and Porter, 28th August, 1893.

4729. DAVID WARNOCK, of Dewdney, District of Alberta, N.W.T. Liquid Compound (Warnock's Warranted Ulcerkure), 28th August, 1893.

4730. POURE, O'KELLY & CIE, faisant affaires sous la raison, BANZY, POURE & CIE., à Boulogne-sur-Mer, France. Plumes métalliques, 30 août 1893.

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7006. SPEAK, MY LOVE. Ballad. Words by Leston Barguet. Music by Julian Jordan. Whaley, Royce & Co., Toronto, Ont., 2nd August, 1893.

7007. THE DIVISION COURTS ACT AND AMENDMENTS THERETO, VOLUME I., by James Bicknell and Edwin E. Seager, Hamilton, Ont., 2nd August, 1893.

7008. THE DREAD VOYAGE. Poems, by William Wilfred Campbell, Ottawa, Ont., 3rd August, 1893.

7009. PUBLIC SCHOOL ALGEBRA ON THE INDUCTIVE METHOD. By C. Clarkson, B.A. W. J. Gage, Toronto, Ont., 5th August, 1893.

7010. MAP OF JAPAN, SHOWING METHODIST MISSION STATIONS. Compiled by the Rev. J. W. Saunby, B.A., 1893. Alexander Sutherland (Clerical Secretary of Methodist Missions), Toronto, Ont., 10th August, 1893.

7011. NOTICE BIOGRAPHIQUE SUR LE REV. PÈRE CHS. DOMINIQUE ALBINI, O. M. I. Mort 1839 à Vico en Corse. Ferd. A. Grenier, Ptre., St. Sauveur de Québec, 11 Août, 1893.

7012. ÉLÉMENTS D'HYGIÈNE PRATIQUE. Par le Dr. E. F. Panneton. E. F. Panneton, and E. S. de Carufel, Trois Rivières, Que., 12 août, 1893.

7013. A DIGEST OF CASES DETERMINED BY THE SUPREME COURT OF CANADA, from the organization of the Court in 1875, to the 1st day of May, 1893. By Robert Cassels, Registrar, Ottawa, Ont., 12th August, 1893.

7014. THE MANITOBA REPORTS, VOLUME VIII. Containing Reports of Cases decided in the Court of Queen's Bench for Manitoba. Editor: Ghent Davis, Barrister at Law. The Law Society of Manitoba, Winnipeg, Man., 14th August, 1893.

7015. CYCLISTS' ROAD MAP OF ONTARIO. The Alexander and Cable Lithographing Company, Ltd., Toronto, Ont., 14th August, 1893.

7016. THE REBEL QUEEN. By Walter Besant. The Toronto News Company, Toronto, Ont., 18th August, 1893.

7017. RAILWAY AND STEAMBOAT ACCIDENT POLICY (form). Thomas George Hand, Toronto, Ont., 19th August, 1893.

7018. TROLLEY CAR ACCIDENT POLICY (form). Thomas George Hand, Toronto, Ont., 19th August, 1893.

7019. A MERCHANT PRINCE; LIFE OF HON. SENATOR JOHN MACDONALD. By Rev. Hugh Johnston, D.D. Wm. Briggs (Book Steward of the Methodist Book and Publishing House), Toronto, Ont., 21st August, 1893.

7020. HUTTEMEYER'S BUSINESS DIRECTORY OF THE WHOLESALE AND RETAIL HOUSES DOING BUSINESS IN THE CITIES OF MONTREAL, QUEBEC AND OTTAWA, 1893-1894. George Christopher Huttemeyer, Montreal, Que., 22nd August, 1893.

7021. HAZEL WALTZ, by Dr. Seem. Arranged by A. Mude. Whaley, Royce & Co., Toronto, Ont., 24th August, 1893.

7022. A FRAUD UNMASKED. The Career of Mrs. Margaret L. Shepherd, Ex-Romanist, etc. Rev. Michael Joseph Brady, Woodstock, Ont., 25th August, 1893.

7023. THE PRINCE OF INDIA; or, WHY CONSTANTINOPLE FELL, by General Lew Wallace. Harper & Bros., New York, N. Y., U.S.A., 25th August, 1893.

7024. STRANGERS. Words and Music by Chas. K. Harris. Arranged by Jos. Clauder. Whaley, Royce & Co., Toronto, Ont., 25th August, 1893.

7025. THE CANADIAN IDENTIFICATION AND REGISTRATION BUREAU CERTIFICATE. (Keys). Francis G. Westlake, London, Ont., 26th August, 1893.

7026. ELMINA VALSE. par Madame Charlotte St. Amour Lefebvre. Charlotte St. Amour, épouse de Louis Lefebvre, Montreal, Que., 28 août, 1893.

7027. THE SHIPPING MANUFACTURERS' LIST (CANADA), BUYERS' GUIDE, 1893-4. M. J. Henry, Montreal, Que., 29th August, 1893.

7028. ANNOTATIONS AND APPENDIX, by F. H. Sykes, B. A., HIGH SCHOOL EDITION, BLACK'S LIFE OF GOLDSMITH. The Copp, Clark Company, Ltd., Toronto, Ont., 30th August, 1893.

7029. KLEISER'S STAR COURSE MARCH, by M. E. Pratt. A. & S. Nordheimer, Toronto, Ont., 31st August, 1893.

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