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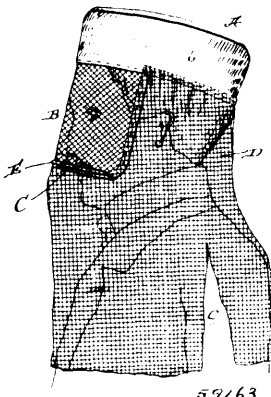
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No. 59,163. Head Screen. (*Voile pour moustiques.*)

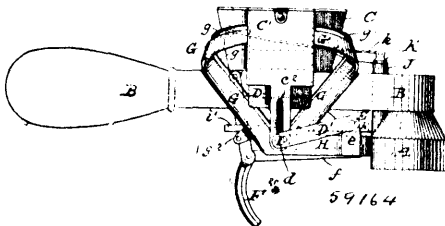


59163

John Conlisk, Ogden, Utah, U.S.A., 1st March, 1898; 6 years. (Filed 4th December, 1897.)

Claim. The head screen described, comprising a cap, the mask or face protector of wire gauze connected to and depending from the forward portion of the cap, and the netting connected to the cap and the side edges of the mask or face protector and having its edge contiguous to the lower end of the mask or face protector provided with a piece of elastic material for removably securing it upon the mask or face protector, substantially as specified.

No. 59,164. Lasting Hammer. (*Marteau à enformer.*)

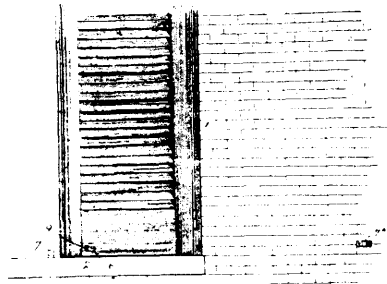


59164

Joseph Elie Lemyre, Manchester, New Hampshire, U.S.A., 1st March, 1898; 6 years. (Filed 7th February, 1898.)

Claim.—1st. In a device of the character described, a suitable receptacle for tacks, race-ways leading from each end of said receptacle to a point of union one with the other, and means whereby said tacks may be dropped consecutively with their heads up and then struck, all substantially for the purpose set forth. 2nd. The combination with a tack receptacle, of a tube, a race-way leading from the receptacle to the tube, a carrier within the receptacle, means for feeding the tacks singly to the tube, a spring-actuated spindle within the tube, and means for simultaneously operating the feeding mechanism, moving the spindle against the spring, and operating the carrier, substantially as set forth. 3rd. The combination with a tack receptacle, of a tube, a spring-actuated spindle therein, a race-way leading from the receptacle to the tube, a separator and a feeding bar for feeding the tacks singly to the tube, a feeding dog for feeding the tacks along the race-way, and means for simultaneously moving the spindle against the spring and for operating the separator, the feeding bar, and the feeding dog. 4th. The combination with a tack receptacle, of a tube, a spring-actuated spindle therein, a race-way communicating with the opposite sides of the receptacle and with the tube, a carrier within the receptacle between the ends of the race-ways, a separator, a feed-bar, and means for simultaneously moving the spindle against the carrier. 5th. The combination with a tack receptacle, of a tube, a spindle therein, a spring connected with the spindle, a bell-crank lever engaging with the intermediate portion of the spring, and means for feeding tacks to the tube, and a trigger provided with means for simultaneously operating said mechanism, and for operating the lever. 6th. The combination with a tack receptacle provided with exits and a slotted extension, of a tack driver, a race-way leading from each of the openings to the driver, a carrier within the receptacle, the upper end of which is provided with means for delivering tacks to the opening, and the lower end is adjacent to the slotted extension, means for feeding the tacks singly to the driver, and a lever provided with means for engaging with the carrier at the slot of the extension and for operating the feeding mechanism and the driver. 7th. The combination with a tack receptacle, of a tube, a spring actuated spindle therein, a race-way leading from the receptacle to the tube, a separator and a feed-bar, a bell-crank lever, provided with a shoulder for engaging with the feed-bar, and means for simultaneously moving the spindle against the spring and operating the lever, substantially as set forth.

No. 59,165. Shutter Fastener. (*Arrête-croisêe.*)

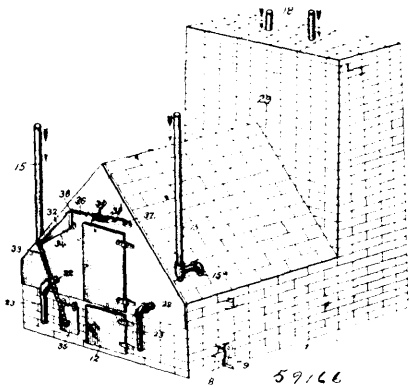


59165

John Bannan, Providence, Rhode Island, U.S.A., 1st March, 1898; 6 years. (Filed 11th February, 1898.)

Claim. A shutter or blind fastener, comprising a threaded sleeve provided at one end with an integral collar having a projecting slotted stop-lip, said sleeve being formed of two semi-cylindrical sections provided with inwardly projecting lugs, a transverse pin or bolt extending through said lugs and sides of the sections and uniting the same, a fastener consisting of a shank pivoted to said bolt, and provided at each end with a locking-head, and a pawl or latch pivoted to and operating in the slot of said locking-lip and adapted to engage the inner head of the fastener to hold it locked, substantially as described.

No. 59,166. Heating System. (Système de chauffage.)



Harvey Kinney Ernsberger, Norwalk, Ohio, U.S.A., 1st March, 1898; 6 years. (Filed 15th February, 1898.)

Claim.—1st. The combination with a heat-generating device having a grate, of an arched series of water-circulating pipes arranged within the fire-box and extending longitudinally thereof, the terminal pipes of said series being located contiguous to the plane of the grate, whereby the pipes are arranged at the top and sides of the fire-box, and the rear ends thereof being upturned in a common plane to pass into the flue of the heat-generating device, and being connected terminally by suitable conductors, the conductors at the front ends of the pipes being arched, substantially as specified. 2nd. The combination with a heat-generating device, of a series of parallel closely-spaced water-circulating pipes communicating with each other at their extremities and extending through the fire-box to form the arched top thereof, a hollow water-back arranged above and contiguous to the series of water-circulating pipes, and outflow and return pipes communicating with both the circulating pipes and the water-back at opposite ends thereof, substantially as specified. 3rd. The combination with a furnace having a fire-box provided with an arched top, of an arched series of parallel terminally connected water-circulating pipes, arranged longitudinally in and near the top of the fire-box, to form the sides and top of the fire-box, a hollow water-back arranged above the water-circulating pipes and conforming with the series of water-circulating pipes to the top of the fire-box, said water-back having a sheet-metal inner or lower side whereby heat is readily communicated to the contents thereof, and outflow and return pipes communicating with opposite ends of the water-circulating pipes and with the water-back at contiguous points, substantially as specified. 4th. A furnace having a fire-box including a grate, water-circulating pipes arranged in the fire-box and communicating with outflow and return pipes, said water-circulating pipes being arranged in an inverted V-shaped series, with the downwardly deflected sides of the series arranged contiguous to the plane of the grate, tubular perforated burners arranged at opposite sides of the fire-box adjacent to the line of intersection of the series of water-circulating pipes with the plane of the grate, said burner-tubes being mounted for partial rotation, whereby they may be turned to project flame toward the fuel on the grate or toward the water-circulating pipes, and supply-pipes communicating with the burners, substantially as specified.

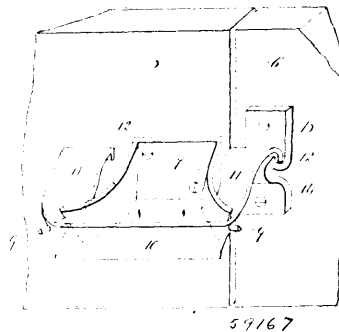
No. 59,167. Fastening Device for Doors.

(Arrête-porte)

William Bainbridge Brooker, Bootle, County of Lancaster, England, 1st March, 1898; 6 years. (Filed 17th February, 1898.)

Claim.—1st. A fastening device, comprising a horizontal latch which is loosely supported, and which is adapted to be turned forwardly and backwardly, said latch being provided with a hook which is adapted to engage with a catch, substantially as shown and described. 2nd. A fastening device, comprising a latch and a catch, said latch being supported in a horizontal position and adapted to be turned forwardly and backwardly, and provided at one end with an angular arm and a catch with which said arm is adapted to engage, substantially as shown and described. 3rd. A fastening device, comprising a latch and a catch, said latch being suitably supported in a horizontal position, and adapted to be turned forwardly and backwardly, and

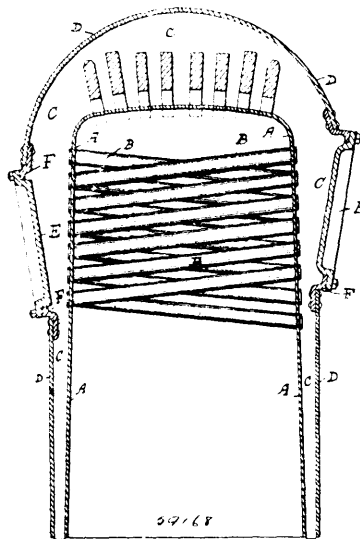
being also provided at each end with a backwardly curved arm, and a catch with which one of said arms is adapted to engage, said catch



being adapted to be secured to a door post or frame, substantially as shown and described.

No. 59,168. Locomotive Boiler.

(Chaudière de locomotive.)



Dugald Drummond, South Bank Lodge, Surbiton, County of Surrey, England, 1st March, 1898; 6 years. (Filed 18th February, 1898.)

Claim.—1st. A locomotive boiler, having water tubes extending across its fire-box in inclined sets secured in the side walls thereof and serving to promote circulation of water and to provide additional heating surface, substantially as described. 2nd. In a locomotive boiler the arrangement in combination with water tubes extending across the fire-box of removable doors secured in the outer shell of the side walls thereof and serving to provide access to the tubes, substantially as described.

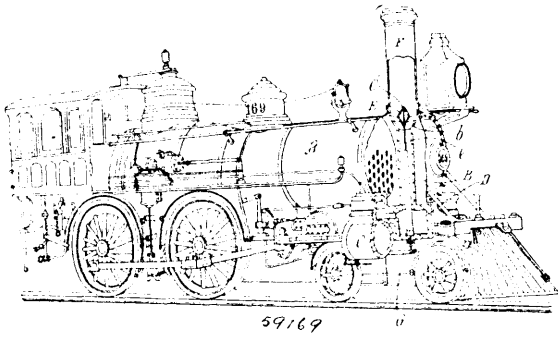
No. 59,169. Steam Engine Exhaust and Draft Device.

(Appareil d'évacuation et de tirage pour machines à vapeur.)

Leogora A. Blubaugh, San Fernando, and William Clarke Simpson, Redlands, both of California, U.S.A., 1st March, 1898; 6 years. (Filed 18th February, 1898.)

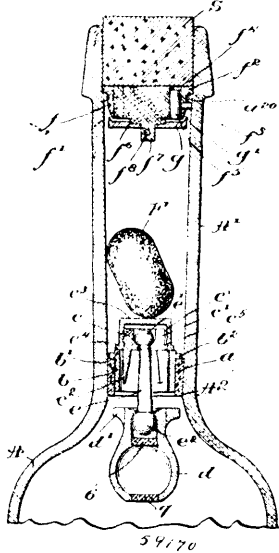
Claim.—1st. In a steam-engine, the combination of a tubular valve and valve-stem having the top thereof arranged opening from the stacker-box up through the valve into the smoke-stack, such valve being arranged to reciprocate to increase or decrease the size of the exhaust-passage, and suitable means for reciprocating such valve. 2nd. In a steam-engine, the combination with a smoke-stack and a stacker-box of a conical steam-jet-spreading valve-plug centrally arranged with relation to the smoke-stack, an exhaust stand-pipe extending from the stacker-box, a discharge-mouth on the stand-pipe, the inner wall of which discharge-mouth flares from the inner wall of the stand-pipe at an angle corresponding to that of the inverted cone of the valve-plug and arranged wholly below the smoke-stack so that an extension of the flaring mouth would contact with the lower end of the inside of the wall of the smoke-stack, the internal diameter of said flaring mouth being less at the bottom and

greater at the top than the greatest diameter of the conical plug, a valve-stem carrying said valve-plug and extending therefrom through



the stand-pipe into the stacker-box, a guide for such valve-stem, a lever connected with the valve-stem to reciprocate the same vertically, and means for operating the lever.

No. 59,170. Non-Refillable Bottle.
(*Bouteille non réemplissable.*)

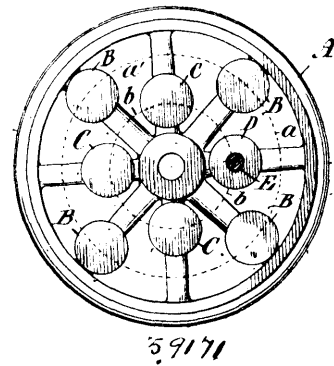


Patrick Henry McGrath, Randolph, Massachusetts, U.S.A., 1st March, 1898; 6 years. (Filed 18th February, 1898.)

Claim.—1st. In a non-refillable bottle, a valve in the neck thereof, a valve seat for said valve, a valve controller connected with the valve and arranged below it and its seat within the body of the bottle, said controller acting by gravity to retain the valve closed when the bottle is upright or canted, and a removable stopper and fixed guard in the bottle neck below the stopper and the float intermediate the valve and the underside of the guard, said controller being laterally extended at its upper end, whereby when the bottle is canted the body of the controller will be retained out of contact with the bottle seat and operative to retain the bottle seated. 2nd. In a non-refillable bottle, a valve seat in the neck, a two-part valve to operate therewith, comprising a separated member and a detachable valve member, a valve controller, consisting of a hollow body within the bottle and having radial extensions at its upper end and a link controlled by a ball and socket joint with said valve and the upper end of the body of the controller, the extensions retaining the said body out of contact with the bottle side and operative to maintain the valve seated when the body is canted. 3rd. In a non-refillable bottle, an annular valve in the neck thereof, a valve seat and valve controller connected by a ball and socket joint with the valve and arranged below it and its seat within the body and the bottle, said controller closing the valve when the bottle is upright or canted, said controller having an air chamber therein to act as a float and to permit the outflowing liquid to readily open the valve when the bottle is only slightly canted, substantially as described. 4th. In a non-refillable bottle, a valve in the neck thereof, a valve seat and valve controller connected with the valve and acting to normally retain the valve closed, a guard in the neck above the valve having a liquid passage and a separated deflector below said guard, means to retain said guard and deflector in place, and the float between the valve and guard, to positively

close the valve from entering liquid, substantially as described. 5th. In a non-refillable bottle, a valve in the neck thereof, a valve seat for said valve, and a valve controller flexibly connected with the valve and arranged below the seat and valve and within the body of the bottle, and acting to retain the valve closed when the bottle is upright or canted, said controller having at its top an annular enlargement which affords a fulcrum against the valve seat support when the bottle is tilted sidewise, to insure closing of the valve by the weight of the controller, the enlargement being provided with fluid passages, substantially as described. 6th. In a non-refillable bottle, a guard in the neck thereof, a valve-seat and support therefor also arranged in said neck and distant from the guard, a valve applied to said seat, a float interposed between the guard and valve, and a valve controller flexibly connected with the valve and arranged below the seat and valve and within the body of the bottle, acting by gravity to retain the valve closed when the bottle is upright or canted and having at its top an annular enlargement projecting therefrom, said enlargement being provided with fluid passages and serving as a fulcrum against the valve-seat support when the bottle is tilted sidewise, to insure closure of the valve by the weight of the controller, introduction of liquid while the bottle is upside down, causing the float to press the valve upon its seat, substantially as described. 7th. In a non-refillable bottle, a shoulder upon the interior of the neck, a guard resting upon said shoulder and having an exit passage for the fluid, means to lock the guard in place, and a deflector plate attached to the lower end of and slightly separated from said guard, said plate having an up-turned bevelled annular flange, substantially as and for the purpose set forth.

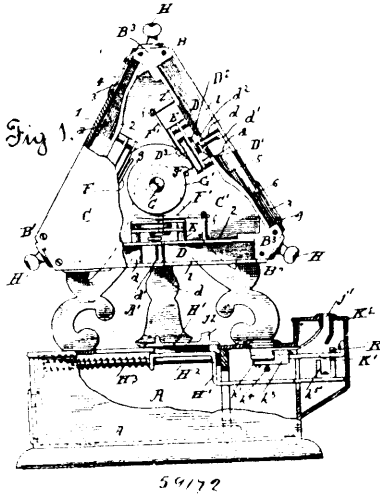
No. 59,171. Locomotive Drive Wheels.
(*Roue de commandes de locomotives.*)



Philip Z. Davis, Lometa, Texas, U.S.A., 1st March, 1898; 6y ears. (Filed 19th February, 1898.)

Claim.—1st. A wheel having a series of weights arranged at equal distances apart in a circle adjacent to and coinciding with the axis of the wheel, and a series of weights arranged at equal distances apart on a circle adjacent the periphery of and coinciding with the axis of the wheel, the weights of both circles being at equal angular distances apart relative to the circumference of the wheel, substantially as described. 2nd. A wheel having a series of weights arranged in a circle and a weight arranged on the line of a circle within the series of weights, all of said weights being an equal angular distance apart relative to the centre of the wheel, substantially as described. 3rd. A wheel for a locomotive having a series of weights arranged in a circle thereon and a series of weights arranged on the line of a circle within the outer series of weights, the weights of each circle being an equal angular distance apart relative to the centre of the wheel, substantially as described. 4th. A driving wheel for locomotives having a balancing weight of annular form between its circumference and centre and concentric therewith, substantially as described. 5th. A driving wheel for locomotives, having a balancing weight of annular form within its circumference and adjacent thereto and concentric therewith, and a similar weight within the circle of the first named weight and adjacent to the axis of and concentric with said wheel, substantially as described. 6th. A driving wheel for locomotives having a balancing weight within its circumference and concentric therewith, said weight consisting of a series of segments arranged end to end to form a ring, substantially as described. 7th. A locomotive drive wheel having a series of weights arranged on the line of a circle within the circumference of the wheel at equal angular distances apart relative to the centre of the wheel, whereby the vertical and horizontal forces generated during the revolution of the wheel are balanced, substantially as described. 8th. A locomotive drive wheel, having three equal weights arranged on the line of a circle midway the center and circumference of the wheel and at equal angular distances apart relative to the centre of the wheel, whereby the vertical and horizontal forces generated during the revolution of the wheel are balanced, substantially as described.

No. 59,172. Game Apparatus. (Appareil de jeu.)

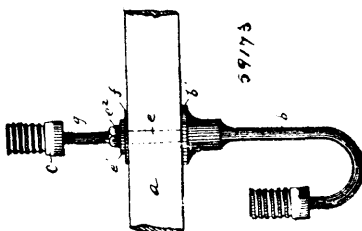


Frank B. Crooks and Robert S. Crooks, both of San Francisco, California, U.S.A., 2nd March, 1898; 6 years. (Filed 17th December, 1897.)

Claim. 1st. In a game apparatus, the combination with a swinging casing or frame composed of two or more shuffling boxes connected together, the cutting ribs or partitions secured within the lower portion of the shuffling boxes so as to provide display compartments, a shuffling chamber in the upper portion of the boxes, a series of rotating shuffling fingers extending into said chamber, and of mechanism for imparting rotary movement to said fingers as the casing or frame is swung over or rotated. 2nd. In a game apparatus, the combination with the casing or frame, of the card-shuffling box, a chamber formed therein, within which the cards are shuffled and intermixed, the movable shuffling device extending into said chamber, and of mechanism for imparting motion to said shuffling device. 3rd. In a game apparatus, the combination with a swinging frame or casing, of the card-shuffling and display-box carried thereby, a chamber formed therein, within which cards are shuffled and intermixed, a series of agitating or shuffling devices extending into said chamber, of mechanism for imparting motion to said devices during the movement of the casing or frame, and of suitable lock-mechanism for controlling the swing or movement of the frame or casing. 4th. In a game apparatus, the combination, with the swinging frame or casing, of the disc-controlled lock-mechanism for regulating the movement of the frame or casing, a chamber formed therein, within which cards are shuffled and intermixed, a series of rotating shuffling fingers working within said chamber, the reciprocating rod for imparting rotary motion to the shuffling fingers, a fulcrumed rack-lever, gear connection between said lever and the reciprocating rod, a shaft upon which the frame or casing is mounted to swing, and a cam secured to said shaft with which the outer end of the fulcrumed rack-lever engages as the frame or casing is swung over. 5th. In a game apparatus, the combination with a swinging shuffling and display-box, of a chamber formed therein, within which cards to be displayed are shuffled and intermixed, the movable card-shuffling devices extending within said chamber, of mechanism for imparting motion to said devices during the swinging movement of the frame or casing, and of disc-controlled lock-mechanism for regulating the movement of the swinging frame or casing. 6th. In a game apparatus, the combination with the swinging card-shuffling box or casing, the lock-mechanism for controlling the movement of the shuffling-box or casing, and of the cutting ribs or fingers secured within the said shuffling-box or casing.

No. 59,173. Insulator Support.

(Support pour insoloirs.)

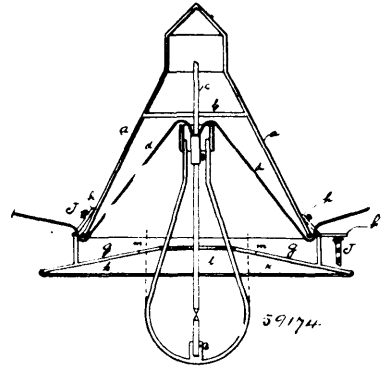


Charles P. Toward, Putnam, Connecticut, U.S.A., 2nd March, 1898; 6 years. (Filed 16th August, 1897.)

Claim. 1st. The curved insulator stem *b* interiorly screw-threaded at the base, and provided with the leaves *d*, in combination with the headed bolt *c*, all substantially as described, and for the purposes set forth. 2nd. The curved insulator stem *b* interiorly screw-threaded at the base, and provided with the leaves *d*, in combination with the headed bolt *c*, the squared part *c'*, and the upright insulator stem *b'*, all substantially as described, and for the purposes set forth.

No. 59,174. Electric Arc Light Reflector.

(Réflecteur de lumière électrique à arc.)

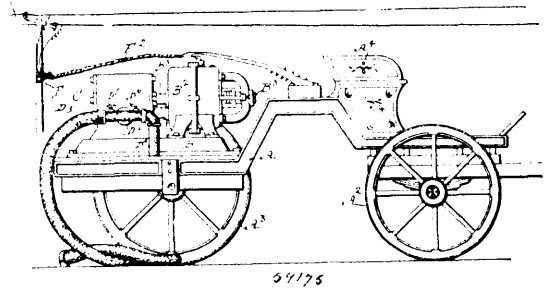


Charles Morris Boles, Dallas, Texas, U.S.A., 2nd March, 1898; 6 years. (Filed 20th September, 1897.)

Claim. 1st. In a reflector for an electric arc-light, the combination of the annular band *g*, and reflector *k* secured upon the lower edge of said band and extending inwardly therefrom, having an aperture for the passage of an arc-light conductor, and means for securing said band upon an arc-light cone, substantially as described. 2nd. In a reflector for an electric arc-light, the combination of the reflector *k* having an aperture for the passage of the arc-light conductor, and means for supporting the said reflector upon the arc-light cone, said reflector extending inwardly from the point of attachment to its supporting means, substantially as described.

No. 59,175. Electric Fire Engine.

(Pompe à incendie électrique.)

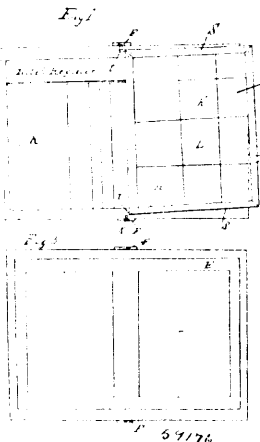


George W. Cox, Stuart, Iowa, U.S.A., 2nd March, 1898; 6 years. (Filed 7th September, 1897.)

Claim. 1st. In an electric fire-engine, a water tank and a rotary pump mounted on a carriage, an induction-pipe *C*³ connected with the pump and provided with a T-joint *D*², one branch of which is connected with the tank and the other branch provided with a branch *C*² leading to the tank and a valve in the branch for closing communication between the pump and tank and also provided with a branch *C*⁶ and a valve in said branch, and a hose attached to said branch for distributing water, all arranged and combined to operate in the manner set forth, for the purposes stated. 2nd. In an electric fire-engine, an electric motor, a pump, a water supply tank, a pipe communicating with the pump and tank and provided with an intervening valve and also provided with a branch for connecting a hose leading to a water supply, and a valve in said branch and a second pipe communicating with the pump and tank and provided with a valve between the pump and the tank, and a branch having a distributing hose attached thereto, and a valve for closing communication with said hose, arranged and combined to operate in the manner set forth, for the purposes stated. 3rd. The combination in an electric fire-engine, upon a suitable carriage, a pump, a water supply tank, a pipe leading from the pump to the tank and a valve for closing communication between the pump and tank and a branch extending from said pipe having a hose attached thereto for filling the tank and a valve for

closing communication with said hose, a storage battery, an electric motor, means for electrically connecting the motor and battery, a second pipe leading from the pump to the tank and provided with a valve for closing communication with the tank and a branch for attaching hose thereto to distribute water, and a valve in the branch for closing communication with the hose, means for connecting the storage battery with an extraneous electric conductor and means for transmitting power from the motor to the traction wheels of the carriage for the purposes stated. 4th. In an electrical fire-engine, the combination of an electric motor and a rotary pump on the same shaft, a suitable water-tank supported between the wheels of the carriage, a storage battery mounted on the tank, wires for connecting the storage battery and motor and the pipes leading from the tank to the pump, a hose connected with one of said pipes to draw water from a suitable source of water supply to the pump and tank, and a hose connected with the other pipe to distribute water from the tank and pump, as and for the purposes stated. 5th. In an electrical fire-engine, the combination of an electric motor and a rotary pump on the same shaft, a suitable water-tank supported between the wheels of the carriage, a storage battery mounted on the tank, wires for connecting the storage battery and motor, a T-pipe connected with the pump and one branch thereof communicating with the tank and the other branch provided with a hose for drawing water, and a second T-pipe connected with the pump and the tank and provided with a hose for distributing water, and suitable gearing for connecting the motor and pump shaft with the driving-axle, substantially as and for the purposes stated. 6th. An electric fire-engine, comprising a suitable carriage, an electric motor, a pump, a water-supply tank, a pipe leading from the tank and a valve for closing said pipe, a pipe leading to an extraneous water-supply and a valve for closing said pipe, a pipe leading from the pump to the tank and provided with a valve for closing said pipe, a hose for distributing water from said pipe and a valve in the pipe for closing communication with said hose, a storage battery, means for detachably connecting said battery with the motor, means for detachably connecting the motor with an extraneous electric conductor and means for detachably connecting the motor with the traction wheels of the carriage, all arranged and combined to operate in the manner set forth. 7th. In an electric fire-engine, the combination with a carriage of a tank for storing water, a storage battery located on top of the tank, an electric motor, means for connecting the motor and storage battery, a pump, a pipe communicating with the pump and tank and provided with an intervening valve and also provided with a branch for connecting a hose leading to a water supply and a valve in said branch and a second pipe communicating with the pump and tank and provided with a valve between the pump and the tank and a branch having a distributing hose attached thereto and a valve for closing communication with said hose, means for connecting the storage battery with an electric conductor that is extraneous to the engine, and means for transmitting power from the motor to the traction wheels of the carriage to propel the engine, for the purposes stated.

No. 59,176. Revoluble Desk. (Pupitre tournant.)

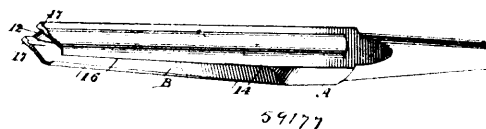


John D. Metz, Dubuque, Iowa, U.S.A., 2nd March, 1898; 6 years. (Filed 17th February, 1898.)

Claim.—1st. A device of the character described, consisting of a desk, a register thereon, and a show-case hinged to the desk and adapted to be turned to rest on either page of the open register, for the purposes shown. 2nd. A device of the character described, a desk, a show-case, consisting of two plates of glass removably set in a frame with a space between said glass, and means for adjustably hinging the show-case upon the desk, for the purposes shown. 3rd. A device of the character described, a turn-table, a revoluble desk pivoted to said turn-table, and a show-case hinged to the desk, the said case having two opposite transparent sides, with space between the sides for receiving one or more advertising-sheets, adapted to be

read from either side of the case, for the purposes shown. 4th. In a device of the character described, a show-case consisting of two plates of glass having bevelled corners, means for hinging said case to a desk, consisting of the arms *l*, plates *h* and projections *k*, all combined to operate, as and for the purposes shown. 5th. A turn-table with rollers therein, a desk pivoted upon said turn-table and adapted to travel upon said rollers, a register upon said desk and a show-case adjustably hinged to said desk and consisting of two plates of glass removably secured within a frame with space between the glasses, and one or more advertising-sheets between the glass, adapted to be read from either side of the show-case, as and for the purposes shown. 6th. A device of the character described, a turn table *A*, with socket *d* and rollers *b*, a desk pivoted upon said turn-table, and having the pads *c*, cover *E*, butts *F*, a register *K*, and show-case *S*, consisting of frame *H*, glass *G*, advertising-sheets *k*¹, and arms *l*, projections *k*, and plates *h*, all combined as and for the purposes shown. 7th. In a device of the character described, a turn-table, a desk pivoted to the turn-table with padding upon its upper surface and butt *F*, of hinge attached to opposite ends of the desk and a show-case consisting of two plates of glass removably set in the frame, with space between the glass and provided with arms *l*, and projections *k*, to engage with the butts *F* of the desk, all combined to operate substantially as described and shown. 8th. In a device of the character described, a revoluble desk and a show-case hinged thereto, having glasses *G*, with bevelled corners *g* removably set within a frame, arms *l* provided with plate *h* and projections *k*, said arms removably secured within said frame, all combined to operate substantially as described and shown. 9th. In a device of the character described, a turn-table provided with rollers set within said table, a desk pivoted upon said turn-table and provided at its opposite ends with half of a hinge and a register, in combination with a show-case having two plates of glass removably set in the frame, with a space between said glasses and with means attached to said show-case for engaging with the half of the hinge upon the desk, whereby the said show-case is removably hinged to the revoluble desk, all combined to operate substantially as described and shown.

No. 59,177. Mortising Chisel. (Ciseau à mortaiser.)



William Potter, New York, State of New York, U.S.A., 2nd March, 1898; 6 years. (Filed 8th November, 1897.)

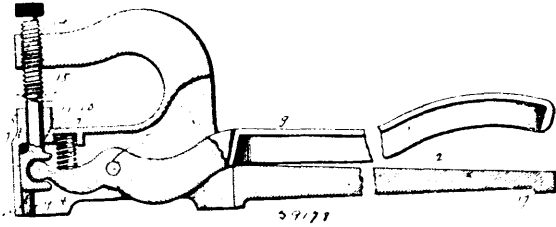
Claim.—1st. A chisel, the chip-receiving channel whereof has its side walls bevelled outwardly in opposite directions, substantially as described. 2nd. A mortising chisel, the side walls of the chip-receiving channel whereof are provided with a floor of uniform width, having an upward inclination from the cutting edge of the chisel and having the interior faces of its side walls bevelled upwardly and outwardly, as and for the purpose specified. 3rd. A mortising chisel, the chip-receiving channel whereof is provided with a floor inclined upwardly and rearwardly, and side walls having their inner faces bevelled upwardly in opposite directions, the said side walls being provided with inwardly extending flanges, commencing at the cutting edge of the chisel and extending a predetermined distance rearward, as and for the purpose specified. 4th. A mortising chisel, provided with a chip-receiving channel, the floor whereof is of uniform width and is given an upward inclination from the cutting edge, the forward portion of the floor being downwardly curved and the side walls having their inner faces upwardly inclined in opposite directions, the said side walls extending beyond the forward end of the floor, having their forward ends bevelled, forming cutting edges, and flanges formed upon the side walls of the said channel, extending in direction of each other over the floor, the flanges being tapering and losing themselves in the side walls of the channel at a point between the centre of said channel and its rear end, as and for the purpose specified. 5th. A mortising chisel, provided with a chip-receiving channel having an upwardly inclined floor provided with rearwardly inclined teeth and side walls bevelled outwardly in opposite directions, together with a flange which extends from the side walls at the cutting edge of the chisel to a predetermined point near the rear portion of the channel, as and for the purpose specified.

No. 59,178. Rivetting Implement. (Outil à river.)

Warren J. Ball, Salem, Ohio, U.S.A., 2nd March, 1898; 6 years. (Filed 22nd November, 1897.)

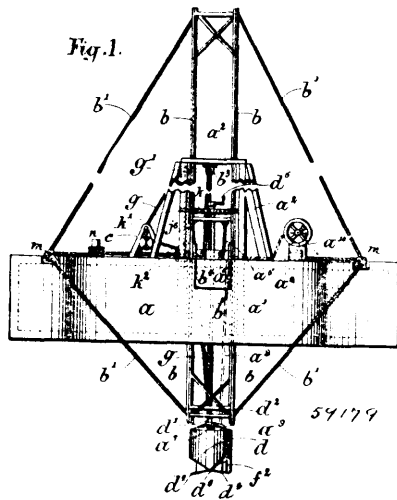
Claim.—1st. The combination of the head 1, provided with the integral handle 2, and the arm 3, an adjustable die connected to the arm, a plunger located within the head and below the die, and a pivoted handle connected to the head and loosely engaging the plunger-head, substantially as and for the purpose specified. 2nd. The combination of the head 1, provided with the guides or ways, a plunger head located within the head 1, and below the die, an adjustable die connected to the arm 3, and a pivoted handle con-

nect-d to the head, substantially as and for the purpose specified. 3rd. The combination of the head 1, provided with the lateral



flanges 16, and the arm or handle 2, provided with the rest 17, the pivoted handle 9, connected to the head, and loosely connected to the plunger-head, and an adjustable die, substantially as and for the purpose specified.

No. 59,179. Dredge. (Dragueur.)



George Poll, 167 Pentonville Road, London, England, 2nd March 1898; 6 years. (Filed 5th January, 1898.)

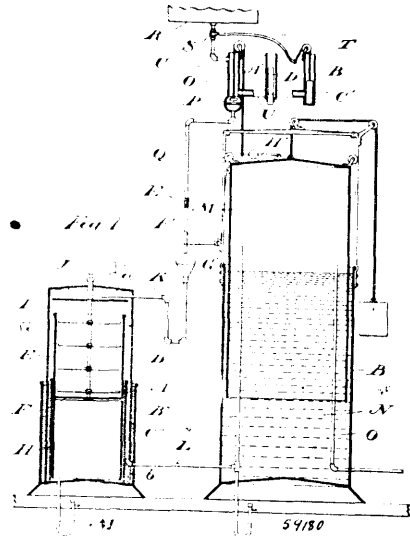
Claim.—1st. A dredge constructed with a well through which guide rods may pass to support a closed bucket, substantially as and for the purposes set forth herein. 2nd. A dredge constructed with a well through which guide rods may pass to support a closed bucket revolved by gearing, substantially as and for the purposes set forth herein. 3rd. A dredge constructed with a well through which guide rods may pass to support a closed bucket revolved by a vertical shaft and spur wheels, substantially as and for the purposes set forth herein. 4th. A dredge bucket having a closed top provided with manholes, falling flaps, and with a bottom formed as shown on figures 1, 3 and 4 substantially as and for the purposes set forth herein. 5th. A dredge bucket having a closed top provided with manholes, falling flaps, and a screwed shaft and nut, substantially as and for the purposes set forth herein. 6th. In combination a nut made in two halves, springs for separating the same, and a strap acting upon wedge shaped faces, substantially as and for the purposes set forth herein. 7th. In combination, a nut made in two halves, springs for separating the same, a strap acting upon wedge shaped faces and held in position by an adjustable eye bolt and a pin, substantially as and for the purposes set forth herein.

No. 59,189. Apparatus for Producing and Storing Acetylene Gas. (Appareil pour la production et l'emmagasinement de gaz acétylène.)

Richard Frederick Carter, Niagara, Ontario, Canada, 2nd March, 1898; 6 years. (Filed 31st December, 1896.)

Claim.—1st. In an apparatus of the class described, a generator containing a hollow cylinder, a perforated diaphragm dividing said cylinder in two parts and thus forming a carbide-chamber in the part on one side of said diaphragm and a lime-receptacle in the part on the other side, in combination with an agitator journaled in the carbide-chamber and having its spindle extending outside of the generator, substantially as described. 2nd. In apparatus of the class described, a generator comprising a hollow cylinder open at its upper end and provided with an inner concentric wall forming an annular water space, in combination with a hollow cylinder open at its lower end and adapted to extend within the said annular water-space, a hollow cylinder divided by a perforated diaphragm to form a carbide-chamber and a lime-receptacle, in combination with an

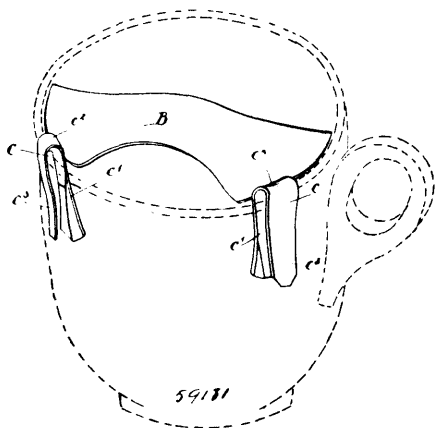
agitator journaled within the receptacle, and having its spindle extending outside the generator, substantially as and for the pur-



pose specified. 3rd. In apparatus of the class described having a generating-chamber and a gas-dome, the chambers O¹ and B¹, and the pipe U, connecting the same, the outlet valve P, and mechanism for operating the valve by the rise and fall of the gas-dome, in combination with a pipe connecting the said chambers with a suitable water-supply, a cock controlling the passage of water in the pipe and mechanism for automatically opening and closing the said cock by the fall and rise of water in the said chambers, substantially as and for the purpose specified. 4th. In apparatus of the class described, having a generating-chamber and a gas-dome, the chambers O¹ and B¹, connected by the pipe U, the outlet valve P, and a cord or chain passing over a suitable guide and connected to the gas-dome, in combination with a pipe connecting the said chambers with a suitable water-supply, a cock controlling the passage of water in the pipe, a lever connected to the stem of the cock, and a float located within the chamber B¹, and suitably connected with the said lever to operate the same by the rise and fall of the water within the cylinder, substantially as and for the purpose specified. 5th. In apparatus of the class described having a generating-chamber and a gas-dome, a water-measuring device comprising the chambers O¹, A¹ and B¹ connected by the pipe U, the outlet-valve P, and a cord or chain passing over a suitable guide and connected to the gas-dome, in combination with a pipe connecting the said chamber with a suitable water-supply, a cock controlling the passage of water in the pipe, a lever connected to the stem of the cock, and a float located within the chamber B¹ and suitably connected with the said lever to operate the same by the rise and fall of the water within the chamber, and a pipe D¹ extending through the bottom of the chamber A¹, and vertically movable therein, substantially as and for the purpose specified. 6th. In apparatus of the class described, a water-measuring device connected with the generator, in combination with mechanism controlled by the decrease of gas in the apparatus for causing the water in the measuring device to flow into the generator, a water supply to the said measuring device, automatic mechanism for refilling the water-measuring device after it has been emptied, and a tube vertically movable through the bottom of said chamber to regulate the height of the water therein, substantially as and for the purpose specified. 7th. In apparatus of the class described, having a generating-chamber and a gas-dome, a water measuring device provided with an outlet-valve and mechanism for operating the valve by the rise and fall of the gas-dome, in combination with a pipe connecting the said chamber with a suitable water-supply, a cock controlling the passage of water in the pipe, mechanism for automatically opening and closing the said cock by the fall and rise of water in the said chamber, and a tube vertically movable through the bottom of said chamber to regulate the height of the water therein, substantially as and for the purpose specified. 8th. In apparatus of the class described, a generator and gas-dome in combination with the water-measuring device provided with an outlet-valve and an adjustable overflow, and mechanism for operating the valve by the rise and fall of the gas-dome, in combination with a pipe connecting the said chamber with a suitable water-supply, a cock controlling the passage of water in the pipe, mechanism for automatically opening and closing the said cock by the fall and rise of water in the said chamber, and a tube vertically movable through the bottom of said chamber to regulate the height of the water therein, substantially as and for the purpose specified. 9th. In apparatus of the class described having a generating chamber and a gas-dome, a water measuring device provided with

an outlet-valve and an adjustable overflow, and a pipe to the generator, a cord or chain passing over a suitable guide and connected to the gas-dome, in combination with a pipe connecting the said water-measuring device with a suitable water-supply, a cock controlling the passage of water in the pipe, a lever connected to the stem of the cock, and a float moved by the raise and fall of water in the said water-measuring device and adapted to operate the said lever, substantially as and for the purpose specified. 10th. In apparatus of the class described, a water-measuring device provided with an outlet-valve having a cord or chain connected thereto and passing over a suitable guide, in combination with a weighted lever pivoted at one end to the gas-dome and having the said cord connected thereto, whereby the said dome may drop without endangering the cord or valve, substantially as and for the purpose specified.

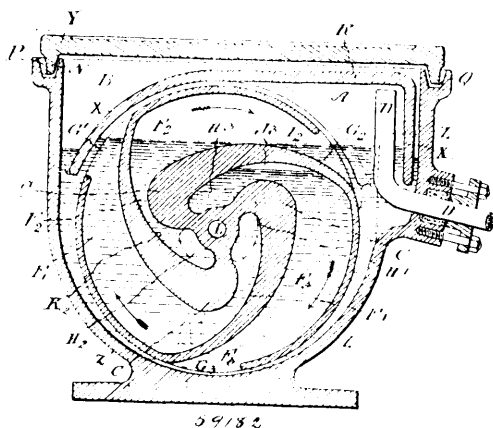
No. 59,181. Mustache Guard and Clip.
(*Garde-moustaches.*)



William Dan Dalgleish, Stamford, Connecticut, U.S.A., 2nd March, 1898; 6 years. (Filed 12th January, 1898.)

Claim.—1st. A mustache guard, having substantially U-shaped clips attached to it, essentially as set forth. 2nd. A mustache guard, having substantially U-shaped clips attached to it, the bends of the clips rising above the plane of the guard, essentially as set forth. 3rd. A mustache guard, having on each side a U-shaped clip whose inner member is thickened toward the free end and tapers toward the bend, substantially as described. 4th. A mustache guard clip, approximately of U-shape and having one member thickened at the free edge and tapering toward the bend of the clip, substantially as described.

No. 59,182. Apparatus for Producing High Vacua.
(*Appareil pour la production de vacuüm.*)

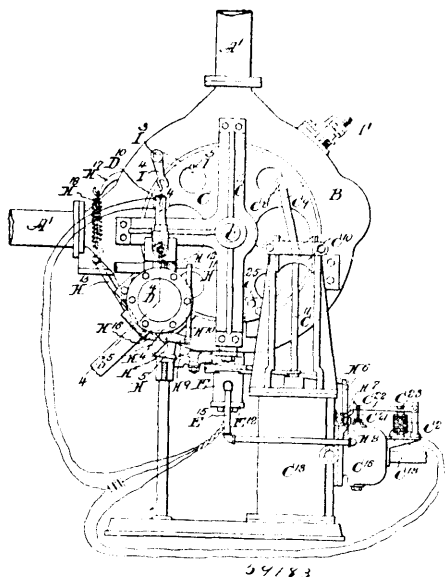


Archibald Barr, Glasgow, Scotland, and William Stroud, Leeds, England, 2nd March, 1898; 6 years. (Filed 1st April, 1897.)

Claim.—An apparatus for the production of high vacua, comprising a case adapted to contain liquid, a cover to the said case, a cap located within the case and providing in connection therewith an inner chamber and an outer chamber sealed one from the other by the said liquid, an exhaust tube communicating with the inner chamber, a pump tube communicating with the

outer chamber, and a rotating drum adapted to be partly submerged in the liquid and having a curved air passage or passages through which air is transferred from the inner chamber to the outer chamber, substantially as described.

No. 59,183. Pneumatic Parcel Carrier.
(*Chien de magasin pneumatique.*)



Birney Clark Batcheller, Philadelphia, Pennsylvania, U.S.A., 2nd March, 1898; 6 years. (Filed 22nd December, 1897.)

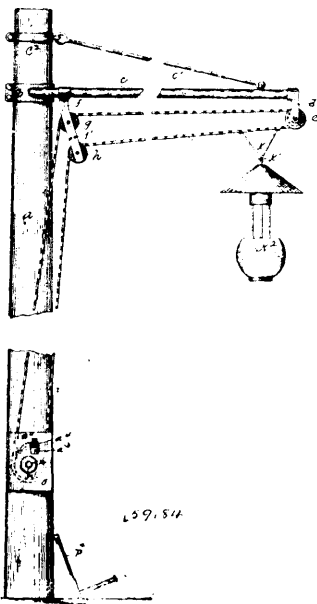
Claim.—1st. In a pneumatic transmission system, having a delivery tube and two or more receiving tubes or discharge passages connectible therewith, a device for delivering the carrier coming from the delivery tube into one of the receiving tubes or discharge passages, in combination with mechanism for actuating said device arranged to be set in actuation by a carrier, and means for checking the motion of the carrier in advance of its reaching said actuating mechanism, so as to avoid the impingement of the carrier thereon while moving at speed. 2nd. In a pneumatic transmission system having a delivery tube and two or more receiving tubes or discharge passages connectible therewith, a device for delivering the carrier coming from the delivery tube into one of the receiving tubes or discharge passages, in combination with mechanism for actuating said device arranged to be set in actuation by a carrier, mechanism for governing the motion and arrest of the device for delivering the carrier also operated by the carrier, and means for checking the motion of the carrier in advance of its reaching said actuating mechanism, so as to avoid the impingement of the carrier thereon while moving at speed. 3rd. In a pneumatic transmission system, the combination with a delivery tube of one or more receiving or discharge passages, a transfer tube adjustably supported so as to be movable into registry with each tube in turn, automatic means arranged to check and stop a carrier as it is received from the delivery tube into the transfer tube and means for moving the transfer tube into registry with any receiving tube or discharge passage. 4th. In a pneumatic transmission system the combination with a delivery tube of one or more receiving tubes or discharge passages, a transfer tube adjustably supported so as to be movable into registry with each tube in turn, automatic means arranged to check and stop a carrier as it is received from the delivery tube into the transfer tube and automatic means for moving the transfer tube into registry with any receiving tube arranged to be actuated by the entrance of the carrier into said transfer tube and to be impinged upon by said carrier after its motion is checked. 5th. In a pneumatic transmission system, the combination of a delivery and one or more receiving or discharge tubes, of a transfer apparatus casing into which said tubes lead, a transfer tube open at both ends and adapted to register in turn with the delivery and receiving tubes, but not with two tubes simultaneously, said tube moving on the casing aforesaid and having its far end closed thereby when in registry with the delivery tube, mechanism for moving the transfer tube into registry with the receiving or discharge tubes and a trip for putting said mechanism into operation arranged to be engaged by a carrier after it has entered the transfer tube. 6th. The combination with conveying tubes out of line, and a discharge chute, of a receiving and transferring tube movable into line with either of the conveying tubes or the chute, and stop mechanism designed to stop the receiving and transferring tube opposite the discharge chute or conveying tube, substantially as specified. 7th. In an apparatus of the character described, the combination with a

suitable casing and transfer frame provided with a receiving tube, of transfer frame actuating mechanism, an electrically actuated valve controlling said mechanism, a carrier, and means for closing the electric circuit by the movement of the carrier, substantially as specified. 8th. In an apparatus of the character described, the combination with a suitable casing, discharge gate and transfer frame provided with a receiving tube, of valve controlled transfer frame actuating mechanism, valve controlled discharge gate actuating mechanism, electrical valve actuating mechanism for each of said valves, and circuit closing mechanism operated by the movement of the carrier, substantially as specified. 9th. In an apparatus of the character described, the combination with a suitable casing and transfer frame provided with a receiving tube designed to receive the carrier, of valve controlled transfer frame actuating mechanism, means for actuating the valve in one direction, and a finger operatively connected to the valve through intermediate mechanism and located in the path of the carrier for actuating the valve in the opposite direction, substantially as specified. 10th. The combination with a casing, transfer frame, discharge gate, and valve controlled discharge gate actuating mechanism, of means for actuating the valve in one direction and a finger operatively connected with the valve and located in the path of the carrier, designed to actuate the valve in the opposite direction, substantially as specified. 11th. In an apparatus of the character described, the combination with a casing, conveying tubes, a discharge gate and a movable transfer frame, of valve controlled transfer frame actuating mechanism, valve controlled discharge gate actuating mechanism, means for actuating the valves in one direction and interdependent fingers operatively connected with the valves and adapted to actuate the valves in the opposite direction, said fingers being located adjacent to the discharge gate and to the entrance of the conveying tube, respectively, substantially as specified. 12th. In an apparatus of the character described, the combination of a transfer frame provided with a receiving tube designed to receive a carrier, of a discharge gate, electrically controlled transfer frame actuating mechanism, electrically controlled discharge gate actuating mechanism, a transfer circuit and a discharge circuit, and a plurality of movable needles in electrical connection with the circuits, substantially as described. 13th. In an apparatus of the character described, the combination with an electric circuit, and a plurality of needles mounted upon a reciprocatory needle support, and means for reciprocating the same, substantially as described. 14th. A carrier for pneumatic despatch tubes having on its forward end an insulated plate of electrical conducting material, substantially as described. 15th. In a carrier, the combination with a cylindrical casing, of a concave end piece, a filling of felt or the like, an insulating disc superimposed upon the felt, an internally and externally threaded bolt piercing the insulating disc, felt and end piece, the interior bore of the bolt being designed for the reception of the shank of a detachable disc, substantially as specified. 16th. In a pneumatic despatch tube system, a despatch tube having sub-stations intermediate its terminals, means at each sub-station receiving and arresting each carrier passing through the tube, and adjustable selecting devices on the carriers and in the receiving and arresting apparatus whereby the carrier may be automatically ejected or continued in its journey, substantially as described. 17th. In a pneumatic despatch tube system, the combination with the main tube, of a sending apparatus, consisting essentially of duplicate tube sections, a swinging frame supporting said sections, fluid pressure means for shifting the frame so that one or the other of the sections may be aligned with the main tube, and an auxiliary by-pass for the main tube for permitting a continuity of pressure in the air column, substantially as described. 18th. In a pneumatic despatch tube system, the combination with the main tube, of two or more tube sections, a supporting frame therefor and means for swinging said supporting frame, consisting essentially of a cylinder, a piston therein, a valve mechanism and leverage devices for operating said valve mechanism, substantially as described. 19th. In a pneumatic despatch tube system, the combination with the main tube, of two or more tube sections, a swinging support therefor, a fluid pressure means for shifting said swinging support for the purpose of placing one or the other of the tube sections in alignment with the main tube, and a lever for controlling said fluid pressure motor, together with an automatically yielding connection between the lever and the fluid pressure motor, substantially as described. 20th. The combination with a pneumatic despatch tube of two or more tube sections, a supporting frame therefor, and means for shifting said supporting frame for the purpose of introducing one or the other of said tube sections into alignment with the main tube, the same consisting of a cylinder, a piston therein whose piston rod operates to shift the supporting frame, a valve chamber on the cylinder, valve mechanism within the same, an operating lever for said valve mechanism, a yielding connection between said lever and the valve mechanism, and locking devices for restraining the operation of said valve mechanism when a carrier happens to be passing through the main tube opposite to the sub-station where the sending apparatus is locked. 21st. In a pneumatic despatch tube system, the combination with the main tube of two or more tube sections, a supporting frame therefor, a motor arranged to actuate said frame, a power controlling device as a valve for regulating the actions of the motor, an operating lever for actuating said controlling device, having a resilient connection therewith, a lock adapted to hold the controlling device against the resilient pressure of the actuating lever, means controlled by the motion of the tube supporting frame

for setting said lock, and a time escapement for releasing the same, all substantially as specified, and whereby the motor is rendered inoperative for a determined time after each operation thereof to inject a carrier into the main tube. 22nd. In a pneumatic despatch tube system, the combination with a main transit tube of an intermediate or sub-station sending apparatus, whereby a carrier can be injected into the transit tube, a motor for actuating said sending apparatus, a power controlling device for regulating the operation of said motor, an actuating lever having a resilient connection with said controlling device, and a lock to secure it in position to actuate said controlling device, means, as one or more locks, for temporarily preventing the motor controlling device from moving under the resilient pressure of the lever, and means for releasing the lever lock aforesaid actuated by the escape of a carrier from the sending apparatus. 23rd. In a pneumatic despatch tube system, the combination with a main transit tube of an intermediate or sub-station sending apparatus, whereby a carrier can be injected into the transit tube, a motor for actuating said sending apparatus, a power controlling device for regulating the operation of said motor, an actuating lever having a resilient connection with said controlling device, and a lock to secure it in position to actuate said controlling device, means as one or more locks for temporarily preventing the motor controlling device from moving under the resilient pressure of the lever, means, as a spring, acting to normally press the lever lock into position to engage the lever, a pneumatic cylinder and piston arranged to disengage said lock from the lever, a conduit for motive fluid leading to said cylinder, a valve or valves in said conduit regulating the passage of fluid therethrough, and a trip arranged to be operated by the exit of a carrier from the sending apparatus and to open said valve or valves to admit motive fluid to the lock cylinder. 24th. In a pneumatic despatch tube system, the combination with a main transit tube of an intermediate or sub-station sending apparatus whereby a carrier can be injected into the transit tube, a motor for actuating said sending apparatus, a power controlling device for regulating the operation of said motor, an actuating lever having a resilient connection with said controlling device and a lock to secure it in position to actuate said controlling device, means as one or more locks for temporarily preventing the motor controlling device from moving under the resilient pressure of the lever, means, as a spring, acting to normally press the lever lock into position to engage the lever, a pneumatic cylinder and piston arranged to disengage said lock from the lever, a conduit for motive fluid leading to said cylinder, a valve or valves in said conduit regulating the passage of fluid therethrough, and a trip arranged to be operated by the exit of a carrier from the sending apparatus and to open said valves to admit motive fluid to the lock cylinder, and mechanism for closing said valve actuated by the motion of the lever lock or attached devices. 25th. In a pneumatic despatch tube system the combination with a main transit tube of an intermediate or sub-station sending apparatus whereby a carrier can be injected into the transit tube, a motor for actuating said sending apparatus, a power controlling device for regulating the operation of said motor, an actuating lever having a resilient connection with said controlling device and a lock to secure it in position to actuate said controlling device, means, as one or more locks, for temporarily preventing the motor controlling device from moving under the resilient pressure of the lever, means, as a spring, acting to normally press the lever lock into position to engage the lever, a pneumatic cylinder and piston arranged to disengage said lock from the lever, a conduit for motive fluid leading to said cylinder, a valve or valves in said conduit regulating the passage of fluid therethrough, a trip arranged to be operated by the exit of a carrier from the sending apparatus and to open said valve or valves to admit motive fluid to the lock cylinder, a port in the lock actuating cylinder opened when the piston is moved to open the lock and a conduit leading therefrom to a cylinder arranged to close the valve in the conduit aforesaid. 26th. In a sending apparatus for a pneumatic tube system, substantially as specified, the combination with the sending lever L^1 of a lock as L^2 arranged to hold the lever in operative position and normally tending to assume the position to do so, a cylinder as L^3 having in it a piston connected to the lock and arranged to detach it from the sending lever when actuated, said cylinder having an inlet conduit L^4 leading into it and an outlet conduit L^5 leading from a point thereon uncovered by the piston when actuated, a main conduit L^6 leading from a source of pneumatic power, a trip as M arranged to be actuated by the outward passage of a carrier from the sender, the plunger and sleeve valve M^2 and M^3 actuated by said trip as described to open connection between conduits L^4 and L^5 , a cylinder M^4 connected to conduit L^5 and a piston M^5 secured to sleeve valve M^3 and arranged to move it to position to close the connection between L^4 and L^5 when air is admitted to cylinder M^4 , all substantially as specified. 27th. In a pneumatic despatch tube system, the combination with a main transit tube of an intermediate or sub-station sending apparatus whereby a carrier can be injected into the transit tube, a lock for said sub-station sending apparatus actuated by the passage of a carrier or carriers in the main tube as it or they approaches the sub-station, and lock releasing mechanism arranged as described to be set in operation simultaneously with the setting of the lock and whereby the setting apparatus is released a definite time after it is locked and without the further action of the carrier. 28th. In a pneumatic despatch tube system, the combination with a sub-station sending apparatus, of means for locking said sending apparatus, and devices operated by the difference in pneumatic

pressure in front of and behind a moving carrier and controlling the operation of said locking means, substantially as described. 29th. In a pneumatic despatch tube system, the combination with a sub-station sending apparatus, of means for locking said apparatus, an electric circuit controlling the operation of said locking means, and means operated by the difference in pneumatic pressure in front of and behind a moving carrier to close a switch in said electric circuit before the carrier reaches the sub-station, substantially as described. 30th. In a pneumatic despatch tube system, the combination with a sub-station sending apparatus, of means for locking said sending apparatus, an electric circuit controlling the operation of said locking means, and means operated by the difference in pneumatic pressure in front of and behind a moving carrier to close a switch in said electric circuit before the carrier reaches the sub-station, and to open said switch after the carrier passes the sub-station, substantially as described. 31st. In a pneumatic despatch tube system, the combination with a sub-station sending apparatus of means actuated by the difference in pneumatic pressure in front of and behind the passing carrier to lock said sending apparatus before the carrier reaches the sub-station, substantially as described. 32nd. In a pneumatic despatch tube system the combination with a sub-station sending apparatus of means actuated by the difference in pneumatic pressure in front of and behind a passing carrier to lock said sending apparatus before the carrier reaches the sub-station and to unlock the same after the carrier has passed the sub-station, substantially as described. 33rd. The combination with the main tube of an air-chamber, an inlet valve therefor, an electric circuit which is automatically closed and opened by the passing of a carrier through the main tube, an electro-magnet on the air chamber, leverage mechanism connected to the inlet valve and operating in connection with the electro-magnet, a differential double piston engaging said leverage mechanism and operated by air pressure from within the air chamber on the one side and from the source of air supply on the other side, and a locking rod operated by the pressure within the air chamber, substantially as described. 34th. The combination in a pneumatic despatch system of the main tube, a circuit closing device operating by the passage of a carrier along the main tube, an air chamber, an inlet valve therefor, an electro-magnet, a leverage mechanism operating to open the inlet valve when the electro-magnet is excited, a differential piston engaging said leverage mechanism to close the inlet valve at the proper time, an air conduit leading from a source of air supply and connecting with the air chamber, an auxiliary air passage connecting with the air chamber and the aforesaid supply conduit, in which latter auxiliary conduit the differential piston is arranged so that air pressure may operate upon both sides thereof, and a locking rod carried by a disc whose face is exposed to the air pressure within the air-chamber, substantially as described.

No. 59,184. Arc Light Holder and Hanger.
(*Suspension pour lumières à arc.*)

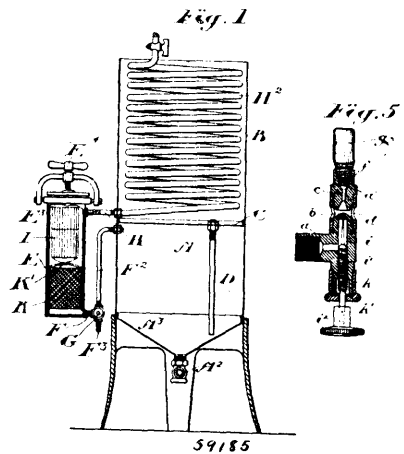


Charles A. Haney, Pittsburg, Pennsylvania, U.S.A., 2nd March, 1898; 6 years. (Filed 26th June, 1897.)

Claim.—1st. In an arc light holder, the combination with an upright standard or pole of a horizontal arm secured thereto, pulleys supported by said arm, a sprocket wheel arranged on the side of the upright standard or pole, an endless chain operating over said sprocket and pulleys and a lamp supported from said chain in a manner to

retain its vertical position during the travel of the chain, substantially as shown and described. 2nd. In an arc light holder and hanger, the combination of an upright, a horizontal arm secured thereto, an endless chain, means for operating said chain, a lamp depending from the chain, and means for the vertical retention of the lamp when in the stationary position and travelling with the chain, substantially as shown and described. 3rd. In an arc light holder or hanger, the combination of an upright, a horizontal arm secured to said upright, a casing, a sprocket wheel arranged on said casing, pulleys suspended from the horizontal arm, an endless chain passing over said pulleys and sprocket, a lamp suspended from said chain, together with means for locking the chain, and for holding the lamp while stationary or during its travel with the chain. 4th. In an arc light holder, an endless chain carrying a hanger to support the lamp, said chain operating over a sprocket wheel and engaging pulleys supported over a horizontal arm, which is attached to an upright standard or post, substantially as shown and described. 5th. In an arc light holder and hanger, the combination of the upright standard or post and the horizontal arm, of an endless chain or other flexible connection having a lamp secured thereto, of means for operating said chain or connection and for retaining the lamp in vertical position while the chain or connection is stationary or during its travel, substantially as shown and described.

No. 59,185. Acetylene Gas Storing Apparatus.
(*Emmagasinage de gaz acétylene.*)



Thomas Holiday, Edgerton, Huddersfield, York, England, 2nd March, 1898; 6 years. (Filed 25th January, 1897.)

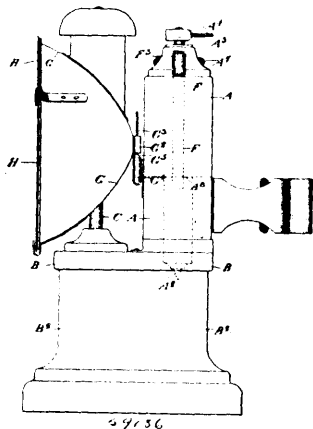
Claim.—1st. An improved apparatus for generating and storing acetylene gas, consisting of a generator and a displacement gas-holder, the generator connected from its upper part with a cooler or service pipe and from below the level of the carbide placed therein with the upper part of a displacement holder, substantially as shown and described. 2nd. An improved apparatus for generating and storing acetylene gas, consisting of a generator having a passage from its upper part to the service pipes or a cooler and from the lower part to the upper part of a displacement holder having in the latter passage a tap or valve to open or close the passage, substantially as described. 3rd. The use of two cages in an acetylene gas generator, an upper one for the carbide with openings sufficiently large to allow the lime or other residue to be washed during the working into a lower one, with openings sufficiently small to retain most of the lime or other residue and allow the water to escape, substantially as described.

No. 59,186. Acetylene Gas Lamp for Vehicles.
(*Lampe de gaz acétylene pour vehicles.*)

Thomas Holiday, of the firm of Read Holiday & Sons, Huddersfield, York, England, 2nd March, 1898; 6 years. (Filed 24th January, 1898.)

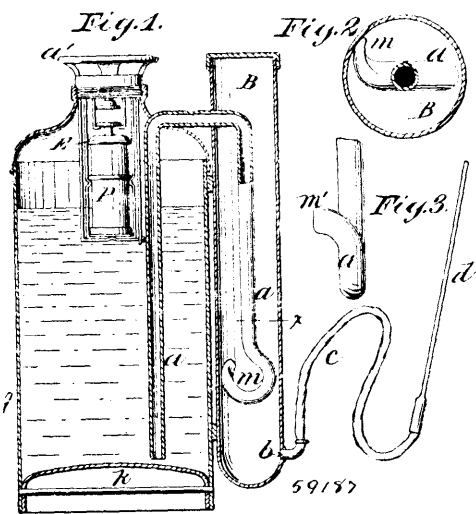
Claim.—1st. An acetylene gas lamp for vehicles, having a gas generating vessel containing a cage or perforated platform for supporting the carbide a suitable distance from the bottom of the vessel and connected to a water vessel by a water supply valve adapted to supply the water in the small and uniform quantity required, substantially as herein shown and described. 2nd. An acetylene lamp for vehicles, having a gas generating vessel containing a cage or perforated platform for supporting the carbide a suitable distance from the bottom of the vessel and connected to a water vessel by a water supply valve fitted with a suitable thread or wick to uniformly convey the water to the carbide, substantially as herein shown and described. 3rd. An acetylene lamp for vehicles, having a gas generating vessel containing a cage or perforated platform for supporting the carbide a suitable distance from the bottom of the vessel and

connected to a water vessel by a water supply valve opened by a cam or finger piece, substantially as herein shown and described.



4th. An acetylene lamp for vehicles having a gas generating vessel containing a cage or perforated platform for supporting the carbide a suitable distance from the bottom of the vessel and connected to a water vessel by a suitable water supply valve and fitted with a safety pipe the external orifice of which is closed by a piece of india rubber tubing, substantially as herein shown and described. 5th. The combination with an acetylene lamp for vehicles, in which the reflector is attached to a bracket (G³ of the spring G⁴, substantially as herein shown and described.

No. 59,187. Fire Extinguisher. (Extincteur d'incendie)

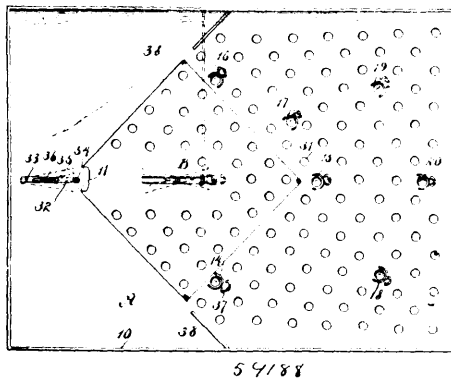


Arthur Cornelius Rowe, New York, State of New York, U.S.A., 3rd March, 1898; 6 years. (Filed 4th January, 1898.)

Claim.—1st. A reversible chemical fire-extinguisher to throw gas or liquid from the same charge at will, consisting of a generating chamber containing an acid receptacle, and a separate drying chamber, affixed to each other in parallel positions and reversing together, the outlets from the first to the second and from the second to the outer air being placed in such positions in their respective chambers that they will both be above the level of the liquid therein in one position of the machine, and below that level in the reversed position, and the inlet into the drying chamber being situated close to and directed against the perpendicular side of the chamber. 2nd. A chemical fire-extinguisher to throw dry gas, consisting of a generating chamber and a separate drying chamber, the outlets from the first to the second and from the second to the outer air being placed in such positions in their respective chambers as to be above the level of the liquid therein, and the inlet into the drying chamber being situated close to and directed against the perpendicular side of the chamber. 3rd. In a reversible chemical fire-extinguisher, the combination of a main receptacle for the alkaline solution, an acid receptacle within the main receptacle, a trough or space formed about the mouth of the acid receptacle and containing a liquid not acted upon by the acid, and a gravity valve completely covering and closing the top of both the acid receptacle and the trough, such valve touching the liquid in the trough to form a

liquid seal when the machine is upright, and falling away by gravity when the machine is reversed. 4th. In a reversible fire-extinguisher to throw liquid or dry gas, interchangeably, the combination of an acid receptacle, a gravity closure therefor, pivots attached to the acid receptacle below the centre of gravity, supporting rods attached to the machine having longitudinal slots to receive the pivots of the acid receptacle, and a corresponding upright projection and socket upon the acid receptacle and its support respectively, such projection and socket holding the acid receptacle upright while the machine is upright, and disengaging by gravity when the machine is reversed. 5th. The combination of a dry-gas fire-extinguisher having a contracted nozzle, to form the gas under pressure, and an additional delivery tube, having its diameter greatly increased over the diameter of the nozzle, to form both a closed conveying channel and an expanding chamber, and delivering the gas upon the fire under reduced pressure. 6th. In combination with a dry-gas fire-extinguisher, a metal delivery tube, having upon the top thereof a receptacle for sand opening into such tube.

No. 59,188. Game Apparatus. (Appareil de jeu.)



Jerome G. Kiah, Sand Beach, Michigan, U.S.A., 3rd March, 1898; 6 years. (Filed 30th December, 1897.)

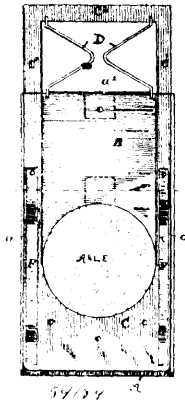
Claim.—1st. In a game apparatus, a board representing a field, cages located on the board, representing the position of players in a base-ball game, a pivoted incline representing the pitcher's box and adapted to receive a rolling object, a rod connected with the incline for laterally moving the same, and adapted to strike the object delivered from the incline, as and for the purpose specified. 2nd. A game apparatus, comprising a board representing a field, the board being provided with a number of pockets, an incline representing the pitcher's box and adapted to receive a rolling object, means for laterally moving the incline, and a pivoted plunger located in position to receive the object from the incline, as and for the purpose specified. 3rd. A game apparatus consisting of a board representing a base-ball field, the said board being provided with pockets at the in and out field portions thereof, cages secured to the said board, placed to represent the position of the players in a base-ball game, an inclined plane representing a pitcher's box pivoted to the said board and adapted to receive a rolling object, a shifting device connected with the inclined plane, and a spring-controlled plunger placed adjacent to the representation of a home plate, the said plunger representing the batter, as and for the purpose specified. 4th. A game apparatus, consisting of a board representing a field, cages located on the board representing the position of players in a base-ball game, an incline representing the pitcher's box and adapted to receive a rolling object, a plunger located in front of said incline and representing a batter, and a shifting device for said incline, comprising a bracket connected to said incline and pivoted to the board, a pin connected with the said bracket and extending through a slot in said board, and a rod connected with the said pin and extending beyond one side of the board or field, as and for the purpose set forth.

No. 59,189. Dust Guard and Oil Saver for Car Axle Boxes. (Garde-poussière et économiseur d'huile pour boîtes à graisse.)

Frederick Pemberton Thompson, Fredericton, New Brunswick, Canada, 3rd March, 1898; 6 years. (Filed 17th February, 1898.)

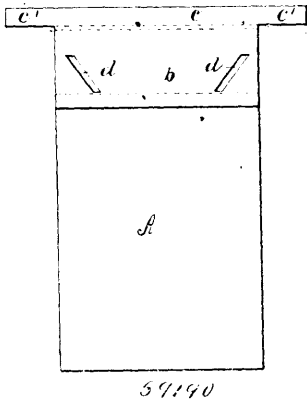
Claim.—1st. In a dust-guard for car axle boxes, of the kind described, two V-shaped springs D, substantially as and for the purpose hereinbefore set forth. 2nd. A dust-guard for car axle boxes, comprising outer case plates A, having flanges a¹, a², and openings for the axle, upper bearing plate B, lower bearing plate C, having frame c, c¹, c², integral, and springs D, all arranged and combined, substantially as and for the purpose hereinbefore set forth. 3rd. A dust-guard for car axle boxes, consisting of outer case plates A, A, having flanges a¹, a², and openings for the axle, the upper bear-

ing plate B fastened to the outer case plate A, the lower bearing plate C, having enclosing frame C', C'', C''', all made in one of



the V-shaped springs placed as described and for the purpose described.

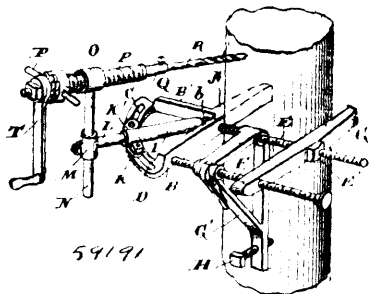
No. 59,190. Envelope. (Enveloppe.)



William Herr Beecher, Philadelphia, Pennsylvania, U.S.A., 3rd March, 1898; 6 years. (Filed 8th January, 1898.)

Claim.—In an envelope of the class recited, the combination therewith of the tongue, the pliable strip of metal secured to one end thereof, and having projecting ends, together with the slits in said tongue, the latter being pasted to the envelope in such manner as to leave a free space between the tongue and the side of the envelope for the reception of the ends of the said strip.

No. 59,191. Hand Drilling Machine. (Foret à main.)

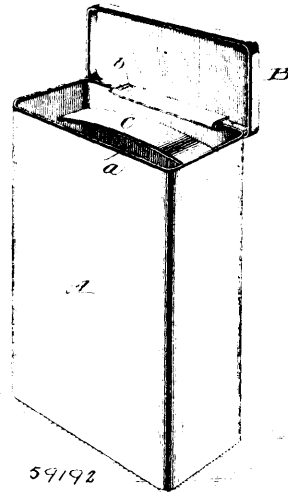


James Murthie, Traverse City, Michigan, U.S.A., 3rd March, 1898; 6 years. (Filed 31st December, 1897.)

Claim.—1st. The combination of a drill-supporting clamp, adapted to be secured to a pillar or other support, and a bracket carried by the clamp and extending at an angle thereto and adapted to engage the support, substantially as shown and described. 2nd. An improved support for a drilling machine, comprising a rigidly connected drill frame and jaw, a second jaw adjustable with relation to the first mentioned jaw, a bracket depending beneath the jaws, and

a set screw carried by the bracket, the parts operating substantially as herein shown and described. 3rd. The combination of a drill-supporting clamp, including horizontally disposed jaws adapted to embrace a pillar or other support, a bracket depending from the clamp, and a screw adjustable in the bracket and adapted to bear against the support, and thus regulate the position of the bracket and the clamp with relation to the support, substantially as shown and described. 4th. An improved drill machine, comprising a frame, including arms B and B' extending at an angle to each other, segment C supported by the arms, a drill and a drill adjusting arm hinged concentrically with segment C and adapted to be held on the latter in proper adjustment, substantially as shown and described. 5th. An improved hand-drilling machine, comprising a support, socket I hinged thereto, and means for securing the socket in proper adjustment, arm L having clamp M at its outer end and at its inner end adjustable in socket I, arm N adjustable in socket M at right angles to arm L, arm N being provided at one end with socket O, a drill feeding mechanism movable through socket O, and a drill, substantially as shown and described. 6th. In a drilling machine, jaw A formed with integral right angle arms B and B', segment C supported by the arms and formed with arc slot D, a drill adjusting arm hinged in the angle of the arms and extended over the arc slot and adapted to be secured in desired adjustment to the segment, a drill, and a second jaw adjustable toward and away from jaw A, substantially as shown and described. 7th. The combination in a drilling machine, with jaws A and G, and screws E and F, of bracket G' adapted for free movement on the screws, and dog g carried by the bracket and co-acting with screw F in the manner and for the purpose herein shown and described.

No. 59,192. Box for Granular Material. (Boîte pour matières granulaires.)



Ralph Walsh, M.D., Washington, District of Columbia, U.S.A., 3rd March, 1898; 6 years. (Filed 19th February, 1898.)

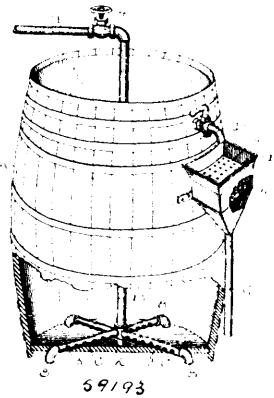
Claim.—1st. A box or receptacle, provided with a removable lid or cover, and containing near its top a shelf or diaphragm distinct and separate from the lid or cover, fitting closely three sides of the box and bounded along its remaining edge by a slot or opening a, substantially as and for the purposes hereinbefore set forth. 2nd. A box or receptacle provided with a removable lid or cover, and containing near its top a shelf or diaphragm distinct and separate from the cover, bowed in the direction of its length, closely fitting, convex side uppermost, three sides of the box, and bounded along its remaining edge by a slot or opening a, substantially as and for the purposes hereinbefore set forth. 3rd. A box or receptacle containing near its top a shelf or diaphragm, distinct and separate from the cover, fitting closely three sides of the box, and bounded along its remaining edge by a slot or opening a, in combination with a cover hinged to that side of the box opposite to the side on which the slot a is situated, and a hinge guard or shield b attached to and moving with the cover, substantially as and for the purposes hereinbefore set forth.

No. 59,193. Brine-making Apparatus. (Appareil pour faire de la saumure.)

Bartholomew B. Quim, Cleveland, Ohio, U.S.A., 3rd March, 1898; 6 years. (Filed 31st March, 1897.)

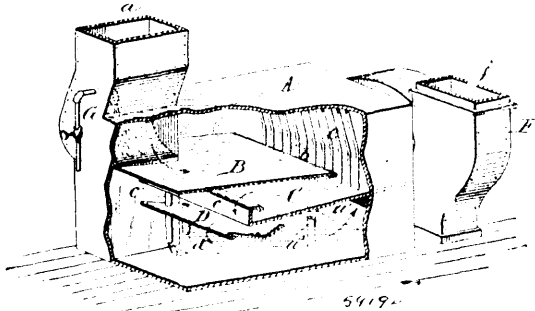
Claim.—The apparatus for making salt brine, consisting of the tank, open at its top to introduce the salt, the pipe to supply water

to the tank, and provided with means to regulate the volume of water flowing into the tank, the spraying-pipe at the bottom of the



tank fed by said pipe, and an outlet for the brine near the top of the tank, substantially as described.

No. 59,194. Air Cooling, Cleansing and Ventilating Device. (*Appareil à nettoyer, ventiler et refroidir l'air.*)



Joseph McCreery, Toledo, Ohio, U.S.A., 3rd March, 1898; 6 year. (Filed 19th February, 1898.)

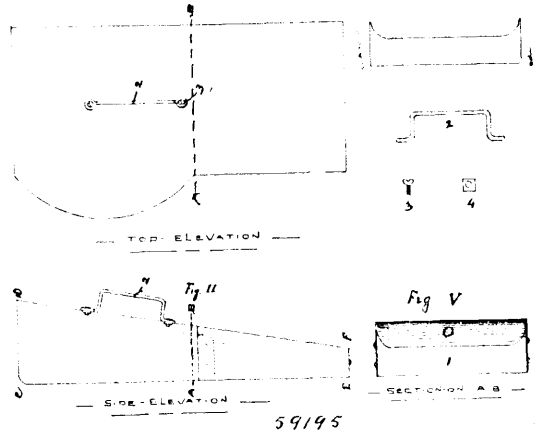
Claim.—1st. An air-cleansing device provided with a number of baffle-plates, the last of which has a trough at one end, and an outlet-pipe at such trough, as set forth. 2nd. An air-cleansing device provided with a number of baffle-plates, the last of which has a trough at one end, an outlet-pipe at such end, and a trough below the lower end of said baffle-plate, the latter trough also having an outlet-pipe, as set forth. 4th. An air-cleansing device provided with baffle-plates, and an ice-receptacle placed opposite the end of one of the baffle-plates, there being a space between such end and the ice-receptacle, as set forth. 5th. An air-cleansing device provided with baffle-plates, and an ice-receptacle placed opposite the end of one of the baffle-plates, there being a space between such end and the ice-receptacle, and there being no ice-receptacle between the end of the last baffle-plate and the side of the air-cleansing device, as set forth. 6th. An air-cleansing and cooling device provided with baffle-plates, and an ice-receptacle opposite to the end of one of the first baffle-plates, as set forth. 7th. The air-cleansing and cooling device A, having the baffle-plates B and C, overlapping each other, the end *c*, of the baffle-plate C, being turned back to form a trough, and having the outlet-pipe *c'*, the trough D, across the case and under the lower end of the baffle plate and having the down-pipe *d*, as set forth. 8th. The air-cleansing and cooling device A, having the baffle-plates B, secured at one end of the case, but stopping short of the other end, and the ice-receptacle placed between the baffle-plate B, and the end of the case, as set forth. 9th. The case A, provided with the baffle-plates B and C, the latter having a trough at one end, and the air inlet *a*, and air-outlet *a'*, with a water supply pipe G, connected to the air-inlet *a*, as set forth.

No. 59,195. Apparatus for Absorbing Kitchen Fumes. (*Fumivore de cuisine.*)

Louis Dion, Montréal, Québec, Canada, 3 mars 1898; 6 ans. (Déposé 24 décembre, 1897.)

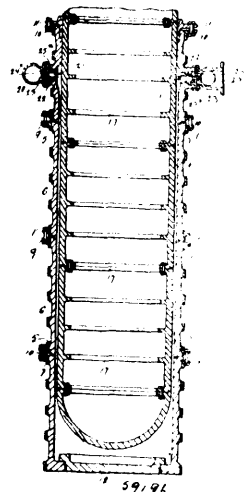
Résumé.—Je réclame donc et revendique comme mon invention, comme nouvel article de manufacture, un appareil pour éconduire

les fumées, vapeurs et odeurs des cuissons dans la cuisine, consistant en un couvercle formant un plan incliné muni d'une poignée ayant



une ouverture dans l'un de ses côtés et divisé par une cloison pourvue d'une ouverture O, pour le passage des fumées, odeurs et vapeurs, le tout tel que décrit.

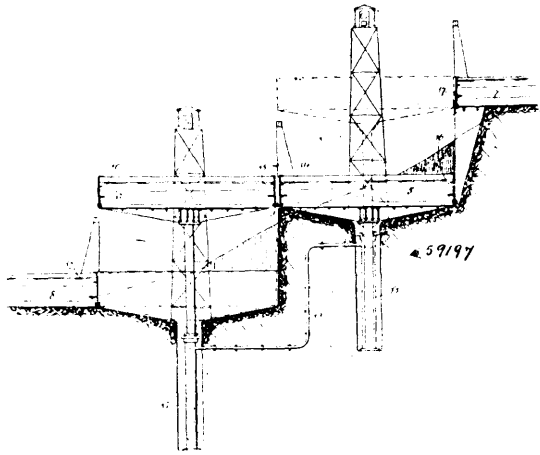
No. 59,196. Canal Lift. (*Ecluse hydraulique.*)



The Société Anonyme John Cockerill, assignee of John Kraft, all of Seraing, Belgium 4th March, 1898; 6 years. (Filed 24th November, 1897.)

Claim.—1st. A canal lift comprising a press, said press being strengthened by a series of rings or bands placed, when in a heated condition on the outside of said press, in order that when cooled will shrink and thus exert an external pressure on the body of the press, for the purpose set forth. 2nd. In combination with the body of a press formed in sections, a series of rings adapted to encircle and fit closely the exterior of said sections, said rings and the portions of the sections they encircle being formed to retain said rings in the positions in which they may be set. 3rd. In combination with the body of a press formed in sections, a series of angle rings adapted to encircle and fit closely the exterior of said sections, the ends of the sections being formed with shoulder-like projections and the rings with corresponding recesses, to retain said rings in the positions in which they may be set. 4th. In combination with a hydraulic or other press, a feed comprising a circular pipe adapted to encircle the press, said circular pipe being furnished with a series of radially projecting passages communicating with the interior of the press, and a supply connection to said circular pipe, for the purpose set forth. 5th. In combination with a hydraulic or other press, a feed comprising a circular pipe adapted to encircle said press, said circular pipe being formed with a pair of horizontal flanges having a series of partitions between them, said flanges being adapted to be secured between the ends of two of the said sections and a supply connection to said circular pipe, substantially as and for the purpose set forth. 6th. In combination with a hydraulic or other press, a feed comprising a circular pipe adapted to encircle said press, said circular pipe having a series of radially projecting pipes secured thereto and communicative with the interior thereof and the interior of the press, and a supply connection to said circular pipe, substantially as and for the purpose set forth.

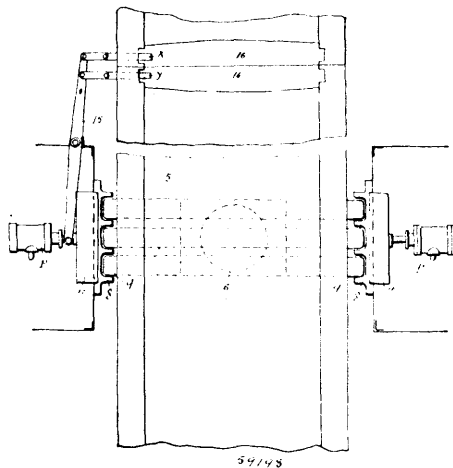
No. 59,197. Canal System. (Système de canaux.)



The Société Anonyme John Cockerill, Seraing, Belgium, assignee of Lyonel E. Clark, of 11 Victoria Street, Westminster, London, England, 4th March, 1898; 6 years. (Filed 24th November, 1897.)

Claim.—1st. In a canal system comprising different levels, a pair of lifts operatively connected together, and arranged and adapted to overcome the difference in levels and to present a single water-way, for the purpose set forth. 2nd. In a canal system comprising different levels, a pair of lifts operatively connected together and arranged in tandem, and adapted to overcome the difference in levels and present a single water-way, for the purpose set forth. 3rd. In a canal system comprising different levels, a pair of lifts operatively connected together, each lift being adapted in its rise and fall to overcome one half of the total difference in levels, for the purpose set forth. 4th. In a canal system comprising different levels, a pair of lifts operatively connected together, each lift being adapted in its rise and fall to overcome one half of the total difference in levels, and to present a single water-way, for the purpose set forth. 5th. A canal system comprising a single water-way, consisting of an upper reach, a lower reach and a middle reach, a lift adapted to overcome the difference in level between the upper reach, and a second lift adapted to overcome the difference between the middle reach and the lower reach, both lifts being operatively connected together, substantially as and for the purpose set forth. 6th. A canal system comprising a single water-way, consisting of a lower reach, a summit or middle reach, and another lower reach on the other side of the said summit, a lift adapted to overcome the difference in level between the first lower reach and the summit reach, and a second lift adapted to overcome the difference between the summit reach and the other lower reach, said lifts being operatively connected together in equilibrium, substantially as described and for the purpose set forth.

No. 59,198. Canal Lift. (Ecluse hydraulique.)

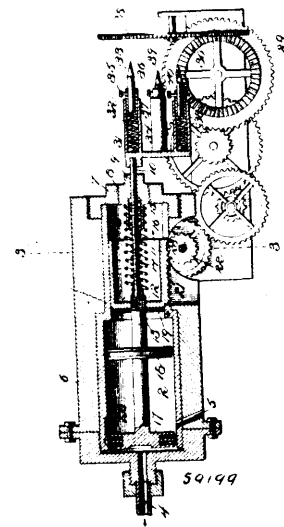


The Société Anonyme John Cockerill, Seraing, Belgium, assignee of Lyonel Edwin Clark, 11 Victoria Street, Westminster, London, England, 24th March, 1898; 6 years. (Filed 24th November, 1897.)

Claim.—1st. In a canal system, the combination with a hydraulic or other canal lift, comprising a trough and means for raising and

lowering same, of an auxiliary supporting device adapted to positively support said trough independently of the mechanism for raising and lowering same, for the purpose set forth. 2nd. In a canal system, the combination with a hydraulic or other lift, comprising a trough and means for raising and lowering same, of an automatically operated auxiliary supporting device adapted to positively support said trough independently of the mechanism for raising and lowering same, and means for operating said supporting device, for the purpose set forth. 3rd. In a canal system, comprising an upper and lower reach and a trough adapted to travel between said upper and lower reaches, said upper and lower reaches having gates, means for operating said trough, means for operating said gates, means for positively supporting said trough independently of the means for operating same, and an operative connection between the means for opening the gates of the upper reach and the means for positively supporting said trough, for the purpose set forth. 4th. In a canal system, the combination with a hydraulic or other lift comprising a trough, of an automatically operated auxiliary supporting device adapted to positively support said trough independently of the mechanism for raising and lowering same, said device consisting of bolts 10 adapted to take beneath lateral projections upon the trough and rest upon vertical guides, and means consisting of differential hydraulic presses for operating said supporting device, substantially as and for the purpose set forth. 5th. In a canal system, the combination with a hydraulic or other lift, comprising a trough of an auxiliary supporting device adapted to positively support said trough independently of the mechanism for raising and lowering same, said supporting device consisting of a pivoted section 12 yielding held by a spring 13 in a position to be engaged by the trough, with means for withdrawing the same, substantially as and for the purpose set forth.

No. 59,199. Brake Pressure Recorder. (Registre de pression de frein.)



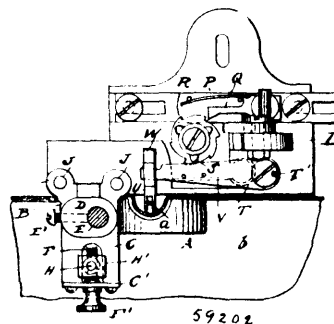
Samuel L. Terry, Chicago, Illinois, and William Stretton, Philipsburg, Kansas, both in the U.S.A., 4th March, 1898; 6 years. (Filed 6th October, 1897)

Claim. 1st. A device for recording the number of applications of pressure in a fluid-pressure brake mechanism, the same having a piston exposed to train-pipe pressure, a slide or plunger adapted to be moved in one direction by the piston and having a return-spring, a recording medium, connections between the recording medium and the slide or plunger, including a clutch mechanism, whereby forward motion only is communicated to the recording medium, and a marker operatively connected with the slide or plunger and adapted to be moved into contact with the surface of the recording medium, substantially as specified. 2nd. A device for recording the number of applications of pressure in a fluid-pressure brake mechanism, the same having a piston exposed to train-pipe pressure, a movable recording medium, a marker, connections between the piston and said marker and recording medium whereby the recording medium receives a limited movement before the marker is affected, and means for returning the marker and piston to their initial positions, substantially as specified. 3rd. A device for recording the number of applications of pressure in a fluid pressure brake mechanism, the same having a piston exposed to train-pipe pressure, a movable recording medium, means for operating the recording medium, and a plurality of markers operatively connected to the piston and adapted to be advanced toward the plane of and brought successively in contact with the surface of the recording medium to indicate pressures of different tension, substantially as specified. 4th. A device for

typewriting machine, comprising a suitable frame, a travelling carriage thereon, a wheel having a ratchet-section mounted in the frame, a belt or cable engaging said wheel and attached at its ends to said carriage, a walking-beam carrying a pawl engaging said ratchet-section, a shaft provided with an arm connected to said walking-beam, a swinging frame mounted on said shaft, a spring connecting said shaft-arm and swinging frame, and depressible keys to operate said swinging frame, substantially as described. 3rd. A typewriting machine, comprising a suitable frame, a travelling carriage thereon, a wheel having a ratchet-section mounted in said frame, a belt or cable engaging said wheel and attached at its ends to said carriage, a walking-beam carrying a pawl engaging said ratchet-section, a shaft provided with an arm connected to said walking-beam, a swinging frame mounted on said shaft, a spring connecting said shaft-arm and swinging frame, a series of rock-shafts connected to said swinging frame, and depressible key-levers mounted on said rock-shafts, substantially as described. 4th. A typewriting machine, comprising a suitable frame, a travelling carriage thereon, a wheel having a ratchet-section mounted in the frame, a belt or cable engaging said wheel and attached at its ends to said carriage, a walking-beam carrying a pawl engaging said ratchet-section, a shaft provided with an arm connected to said walking-beam, a swinging frame mounted on said shaft, a spring connecting said shaft-arm and swinging frame, a key-shaft connected to said swinging frame, a depressible key-lever mounted thereon, a type-lever pivotally linked to said key-lever, and a stop-pin below the arm of said shaft, substantially as described. 5th. A typewriting machine, comprising a suitable frame, a carriage thereon, a pair of reels, a ribbon connecting the same and arranged adjacent to and below the platen-surface of the carriage, a shaft suitably journaled and adapted to operate one of said reels and wind the ribbon thereon, an arm projecting from said shaft, a swinging frame upon said shaft, a spring connecting said arm and said frame, a shaft suitably journaled and connected to said swinging frame, a key-lever upon said shaft, a type-lever suitably mounted and linked to said key-lever, and a stop-pin below the arm of said shaft so as to limit its movement and thereby arrest the movement of the ribbon before the type comes in contact with it, substantially as described. 6th. A typewriting machine, comprising a suitable framework, a carriage thereon, a pair of reels, a ribbon connecting them and suitably guided adjacent to the platen-surface of the carriage, a ratchet-wheel upon the shaft of one of said reels, a shaft suitably journaled, a dog carried thereby and engaging said ratchet-wheel, an arm projecting from said shaft, a swinging frame upon said shaft, a retractile spring connecting said arm and said frame, a key-shaft connected to said frame, a key-lever mounted upon said shaft, a type-lever suitably mounted and linked to said key-lever, and a stop-pin to limit the movement of the arm of the shaft connected to said swinging frame, substantially as described. 7th. A typewriting machine, comprising a suitable framework, a travelling carriage thereon, a wheel mounted in the frame and provided with a ratchet-section, a belt or cable engaging said wheel and attached at its opposite ends to said carriage, a pair of reels mounted in the frame, a ribbon connecting the same and guided adjacent to the platen-surface of the carriage, a walking-beam, a pawl mounted thereon and engaging said ratchet-section, a shaft adapted to impart motion to one of said reels and wind the ribbon thereon, an arm projecting from said shaft, a link connecting said arm with the walking-beam, a swinging frame mounted upon said shaft, a retractile spring connecting the same with the arm of said shaft, a key-shaft connected to said swinging frame, a key-lever mounted upon said shaft, a type-lever suitably mounted and linked to said key-lever, and a stop-pin arranged to limit the movement of said arm and consequently arrest the carriage and the ribbon before the type comes in contact with the latter, substantially as described. 8th. A typewriting machine, comprising a suitable framework, a travelling carriage thereon, a wheel mounted in the frame, and provided with a ratchet-section, a belt or cable engaging said wheel and attached at its opposite ends to said carriage, a pair of reels mounted in the frame, a ribbon connecting the same and guided adjacent to the platen-surface of the carriage, a walking-beam, a pawl mounted thereon and engaging said ratchet-section, a shaft adapted to impart motion to one of said reels and wind the ribbon thereon, an arm projecting from said shaft, a link connecting said arm with the walking-beam, a swinging frame mounted upon said shaft, a retractile spring connecting the same with the arm of said shaft, a key-shaft connected to said swinging frame, a key-lever mounted upon said shaft, a type-lever suitably mounted and linked to said key-lever, a stop-pin arranged to limit the movement of said shaft-arm, and consequently arrest the carriage and the ribbon before the type comes in contact with the latter, means to return the wheel and carriage back to their original positions, and a spring to re-elevate said walking-beam and consequently rock the shaft which also operates the ribbon-mechanism back to its original position and return the swinging frame also to its original position with the assistance of said retractile spring, substantially as described. 9th. In a typewriting machine, a suitable framework, a carriage support and adjuster thereon, and provided with guide-rollers, a bar mounted slidably on and between said guide-rollers, a carriage frame having a hinged connection with said bar and resting also upon the framework, and means to shift the carriage-support and adjuster back and forth, substantially as and for the purpose described. 10th. In a typewriting machine, a suitable framework, a carriage support and

adjuster-mounted thereon, and provided with flanged guide-rollers, a carriage-frame having a roller bearing at its front side on the framework, and a hinged connection with said rectangular bar, and means to move the carriage longitudinally or pivotally with respect to the support and adjuster, and means to move the latter back and forth, substantially as described. 11th. In a typewriting machine, the combination with a suitable frame, a bracket thereon, and a carriage, of a rotatable cylinder upon said carriage, a cam-wheel mounted to rotate with said cylinder and provided with a plurality of spiral flanges or ribs, a sliding-bar mounted in the carriage, a dog carried thereby and adapted under the impact of the bar against the socket to engage one of said spiral flanges or ribs and rotatably operate said cam-wheel and said cylinder or feed-roller, substantially as described. 12th. In a typewriting machine, the combination of a suitable frame, a carriage mounted thereon, a rotatable cylinder or feed-roller journaled in said carriage, a cam-wheel mounted to rotate with said cylinder and provided with a plurality of flanges or ribs, a sliding bar mounted upon the carriage, a spring holding the bar normally withdrawn, a dog carried by said bar, and a bracket mounted upon the machine frame against which said bar strikes as the carriage returns to its initial position, and thereby causes the dog to engage and rotate the cam-wheel and cylinder and feed the paper for the printing of a new line, substantially as described. 13th. In a typewriting machine, the combination with a suitable framework, and a bracket on the same, of a travelling carriage also on said framework, a rotatable cylinder thereon, a cam-wheel mounted to rotate with said cylinder, and provided with a plurality of flanges, a retracted-sliding bar on said carriage, a dog carried thereby, a spring holding said dog at the limit of its movement in one direction, and means to return the carriage to its starting-point and cause said bar to strike against and be advanced by said bracket, and thereby rotate said cam-wheel and cylinder, substantially as described. 14th. In a typewriting machine, a suitable frame, a travelling carriage thereon, a rotatable cylinder or feed-roller journaled therein, a cam-wheel mounted to rotate with said cylinder or feed-roller and provided with a plurality of flanges or ribs, a retracted-sliding bar in said carriage, a dog carried thereby, a spring holding said dog at the limit of its movement in one direction, a bracket upon the machine frame in the path of said bar, means to return the carriage to its starting-point and cause said bar to strike against and be advanced by said bracket, and thereby rotate said cam-wheel and cylinder, and a spring to return or withdraw said sliding bar to its original position after the carriage begins again its forward movement, substantially as described.

No. 59,202. Sewing Machine Overseaming Attachment. (*Attache d'assemblement pour machines à coudre.*)

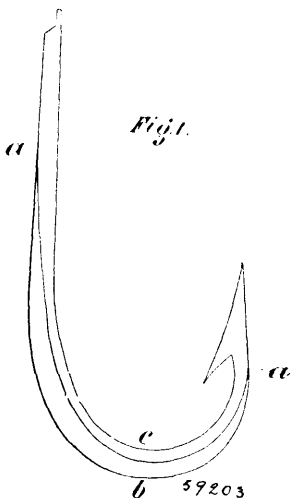


William Daniel Elger, assignee of Carl Schneider, both of Brooklyn, New York, U.S.A., 4th March, 1898; 6 years. (Filed 1st December, 1897.)

Claim.—1st. In a sewing machine attachment, the combination with a base plate adapted to be attached to the presser foot and provided with a recess opening toward the presser foot, of a longitudinally reciprocating pusher guided to move toward and from the presser foot, and having a recess or slot through which the needle can pass, and means for operating the pusher from the needle bar, substantially as herein shown and described. 2nd. The combination with the presser bar, of a sewing machine, of a socket piece attached to the same, a presser foot having an extension mounted to slide on the socket piece, a screw for adjusting the extension on the socket piece, a base plate held on the extension of the presser foot devices on the base plate for shifting the edge of the fabric being sewed and means for operating said devices from the needle bar of the sewing machine, substantially as herein shown and described. 3rd. The combination with the presser bar of a sewing machine, of a socket piece attached to the same, a presser foot having an extension mounted adjustably on the socket piece, means for shifting the said extension on the socket piece, means for locking the extension on the socket piece, a base plate attached to the presser foot devices on said base plate for shifting the edge of the fabric being sewed, and means for operating said devices from the needle bar of the sewing machine, substantially as herein shown and described. 4th. The

combination with the presser foot of a sewing machine, of pins projecting upward from the same, a base plate having holes for receiving such pins, devices on said plate for shifting the edge of the fabric being sewed, and means for operating said devices from the needle bar of the sewing machine, substantially as herein shown and described.

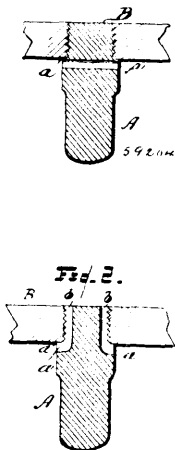
No. 59,203. Fishing Hook. (Hameçon.)



Charles Smith, Smith's Parish, Bermuda, and Mark Golinsky, Rahway, New Jersey, U.S.A., 4th March, 1898; 6 years. (Filed 9th December, 1897.)

Claim.—A fish hook made of one piece of metal, having from about its centre longitudinally a decrease in its breadth in the form of a bevel angle to its outside curve, substantially as shown and described, as and for the purpose hereinbefore set forth.

No. 59,204. Horseshoe Calk. (Crampon de fer à cheval.)



James Carnes and Merrill B. Mills, both of Detroit, Michigan, U.S.A., 4th March, 1898; 6 years. (Filed 12th February, 1898.)

Claim.—1st. A removable horse shoe calk provided with side openings in which to engage a tool for turning the calk, substantially as described. 2nd. A removable horse shoe calk provided with a side channel extending up the side of the shank, whereby the same may be removed when the body is worn away, substantially as described. 3rd. A removable horse shoe calk provided with a channel on the shank to receive a tool, said channel extending through the shank to allow the same to loosen when the calk is worn, substantially as described. 4th. A removable horse shoe calk provided with a side channel on the shank, said channel extending into the body, substantially as described.

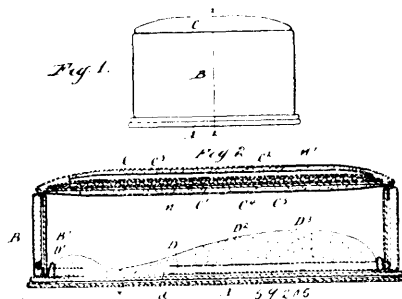
No. 59,205. Case for Silverware, etc.

(Boite à argenterie, etc.)

The Whiting Manufacturing Company, assignee of Edwin John Fletcher, New York, State of New York, U.S.A., 4th March, 1898; 6 years. (Filed 14th February, 1898.)

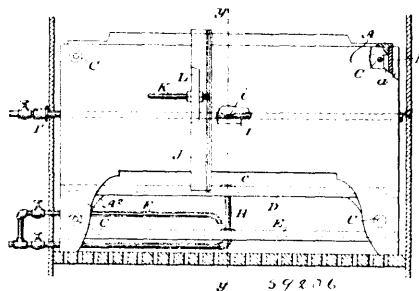
Claim.—1st. In a case or box, the top composed of corrugated paper having its margins crushed or flattened, and held in shape by

a covering-sheet stretched tightly thereover and cemented, all substantially as and for the purposes herein specified. 2nd. In a case



or box, the top composed of corrugated paper having its margins crushed or flattened, in combination with a reinforcing tablet of strong material applied on its under face, and a covering-sheet stretched tightly on the upper face of said corrugated paper, extending over said margins and cemented to the under face of said reinforcing tablet, all substantially as herein specified. 3rd. In a case or box, the piece M of corrugated paper consisting of the floor m^1 , the corrugated sheet m cemented thereto and the deck m^2 cemented to the upper face of said corrugated sheet, the said floor being heavier than said deck to maintain its form when said deck and corrugated sheet are crushed along the margins, in combination with a covering-sheet stretched on said deck and extending over the edges to hold the top in shape, all substantially as herein specified. 4th. In a top for a case or box, the reinforcing-tablet C^1 , two or more pieces M, M^1 of corrugated paper superposed one upon the other with the corrugations at right angles, each shorter and narrower than the next below, and having the margins crushed or flattened, in combination with a covering sheet stretched over and inclosing the whole and cemented to the under face of said tablet, all substantially as herein specified. 5th. In a top for a case or box, the reinforcing-tablet C^1 , two or more pieces M, M^1 of corrugated paper superposed one upon the other with corrugations at right angles, each shorter and narrower than the next below, and having the margins crushed or flattened, in combination with the padding C^2 , and a covering-sheet stretched over and inclosing the whole and cemented to the under face of said tablet, all substantially as herein specified. 6th. In a case or box, the bed D of corrugated paper having the opening d therein, in combination with the bed-frame D^1 , padding D^2 and covering D^3 , all substantially as herein specified. 7th. In a case or box, the base A, bed D of corrugated paper having the opening d therein, the bed-frame D^1 , padding D^2 and covering D^3 , in combination with the body B hinged to the base inclosing said bed-frame, the top C of corrugated paper m , m^1 , m^2 , padding C^2 and covering-sheet C^3 , and stops B^2 to limit the motion of said body and top relatively to said base, all substantially as herein specified. 8th. The hinge described consisting of a flexible cord extending through the base into and through the rear portion of the body diagonally from the lower rear angle of the edge to a point on the inner face, thence downward again through the base and having the ends fastened, in combination with said body and base and forming a hinge and stop therefor, all substantially as and for the purposes herein specified. 9th. The base A having the holes a and a^2 , the body B having the hole c reaching diagonally from the lower rear angle of the edge to the inner face, in combination with a flexible member extending through said holes as shown and having the ends fastened, the reinforce G securing the ends, the said cord being concealed in said base and body and by the covering material, all substantially as and for the purposes herein set forth.

No. 59,206. Petroleum Burner. (Brûleur à pétrole.)



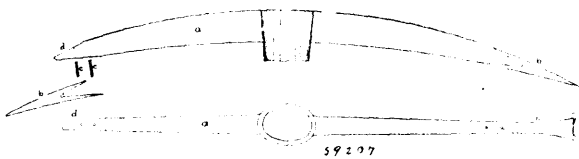
Francis C. Bates and Frank R Moore, both of San Jose, California, U.S.A., 4th March, 1898; 6 years. (Filed 14th January, 1898.)

Claim.—1st. A device for burning petroleum, consisting of an enclosing case, a horizontally disposed pen situated intermediate

between the top and bottom of the case, said case having an opening made in it just above the edge of the tray for the delivery of the burning gases whereby they are carried up over the outside of the case, a pipe with a controlling valve through which petroleum is supplied to the tray, a horizontal perforated jet-pipe extending through the case above the pan and adapted to vaporize water and deliver steam jets there-through to mingle with the petroleum vapours, and means for heating the pan preliminary to the supply of oil to it. 2nd. An apparatus for burning crude petroleum, consisting of an inclosing case provided with a discharge opening in its side, for the products of combustion, said case having means for relieving an excess of pressure therein, a shallow tray within said case and means for supplying oil thereto, means for supplying steam-jets to mingle with the petroleum vapours and a means proximate to the tray and adapted to heat the same preliminary to the supply of oil to said tray. 3rd. A device for burning crude petroleum, consisting of an inclosing box or case adapted to fit the fire-box of the stove or other structure within which it is to be used, a horizontally disposed tray having shallow peripheral side flanges, and means for introducing a regulated supply of petroleum to the bottom of the tray, a perforated pipe with means for controlling the supply of water thereto, said pipe passing through the box above the tray whereby the water is converted into steam and the jets discharged and decomposed to mingle the resultant gases with the vapours of the hydro-carbon, said case having an opening made in its side just above the edge of the tray for the delivery of the burning gases whereby they are carried up over the outside of the box, and a preliminary heating and igniting tray situated below the main tray with a means for supplying the hydro-carbon thereto so that by its ignition the main tray is heated preliminary to the supply of oil to it. 4th. An apparatus for burning petroleum, consisting of a box or case fitted to the fire-box in which it is to be used, superposed trays within said case, the upper tray of which is adapted to contain the petroleum, and the lower one serving as a preliminary heater and igniter, and pipes and valves through which petroleum is supplied to each of the trays when desired, and water supplied through the upper part of the case. 5th. In an apparatus for burning petroleum, the inclosing casing, having an opening in its side for the delivery of the burning gasses whereby the latter are carried up over the outside of the casing, means for burning oil in said casing and a scraper slidably mounted on the casing and having a lug engaging the walls of the discharge opening to remove deposits therefrom. 6th. An apparatus for burning petroleum, consisting of a box or case with a horizontal burning tray and means for supplying oil thereto, a loosely attached safety cover having a flange upon one edge, a slidable scraper having the lower edge provided with a grooved lug slidable upon the flanged edge of the tray, and the upper end with a grooved lug slidable upon the exterior cover flange and forming a hinge for the same.

No. 59,207. Point Attachment for Miner's Picks.

(Attache pour pics de mineurs.)



Quincy Albert Merrick, Manistee, Michigan, U.S.A., 7th March, 1898; 6 years. (Filed 13th December, 1897.)

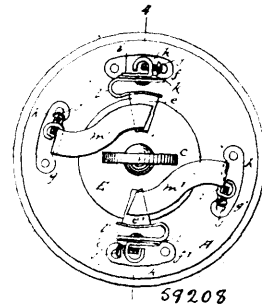
Claim.—The sleeves of point B, the tapered rivets and tapered rivet holes in arm D, the anchorage at the point of arm D concave, and anchorage in point B convexed, also shoulder on arm D to connect with short sleeve F in point B.

No. 59,208. Electric Switch. (Commutateur électrique.)

Abraham K. Dresler, Worcester, Pennsylvania, U.S.A., 7th March, 1898; 6 years. (Filed 23rd September, 1896.)

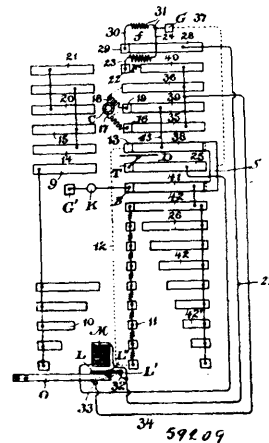
Claim.—1st. In an electric switch, the combination of the contact-carrying disc provided with long and short studs, the spindle carrying the disc, the spring attached to the spindle and to the disc, the base in which the spindle is journaled, spring-arms attached to the base and adapted to engage the long and short studs of the disc, and wedge-cams carried by the spindle and adapted to engage the spring-arms, substantially as specified. 2nd. The combination with the recessed base of two or more spring-arms formed integrally with a base-plate and provided with projections extending inwardly toward the centre of the base-plate, a spindle, and wedge-cams carried thereby for engaging the projections of the spring-arms, the spring-pressed disc placed loosely on the spindle and provided with studs for engaging the spring-arms, contact-pieces carried by the disc, the spring connecting the spindle and the disc, and contact springs attached to the base, as herein specified. 3rd. In an electric switch, the combination with fixed contacts, of a spring-pressed revolvable disc carrying contacts and

provided with long and studs, short a spindle supporting the disc and provided with thick and thin wedge-cams, and spring-arms



attached to the base and constructed for engagement by the wedge-cams, substantially as specified. 4th. In an electric switch, a binding-post formed of a single piece of metal bent at right angles, the horizontal member forming a foot for the post, and the vertical member having one end disconnected from the horizontal member and curved over and against the other end of the said vertical member, forming an open ended receptacle, substantially as described. 5th. In an electric switch, the mechanism for causing a long break and short make, formed of a long and short spring wedge-cams, as herein specified.

No. 59,209. Electric Brake. (Frein électrique.)

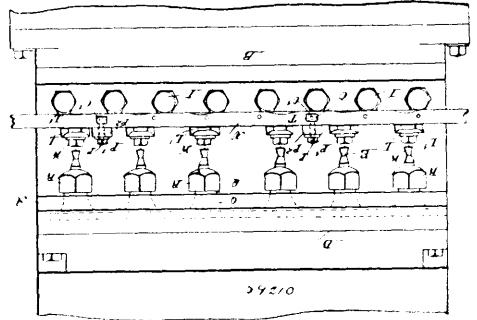


Elmer Ambrose Sperry, Cleveland, Ohio, U.S.A., 7th March, 1898; 6 years. (Filed 13th October, 1896.)

Claim.—1st. In an electric controller, a source of electrical supply, a series electric machine, an independent field coil of high resistance from such machine, the controller adapted to assume a position wherein the main circuits are open, in combination with contacts so located in the controller that at the above position of the controller the source of supply is connected with the field coil of high resistance. 2nd. In an electric controller a source of electrical supply, a series electric machine, an independent field coil of high resistance for such machine, the controller adapted to assume a position wherein the main circuits are open, contacts so located in the controller that at the above position of the controller the source of supply is connected with the field coil of high resistance, in combination with means responsive to an electric current for holding an electric circuit open. 3rd. In an electric controller, a source of electrical supply, a series electric machine, an independent field coil of high resistance for such machine, the controller adapted to assume a position wherein the main circuits are open, contacts so located in the controller that at the above position of the controller the source of supply is connected with the field coil of high resistance, in combination with means responsive to an electric current for transferring the high resistance field coil to the said main circuit. 4th. In an electric brake system, the combination of means for placing the motor in operative connection with a source of electrical supply so as to be driven as a motor, contacts for connecting the source of electrical supply to an auxiliary field coil of such machine, a reversing switch for reversing the relation of armature and field, and contacts and brushes for coupling them as a generator to an electric circuit. 5th. In an electric brake system, the combination of means for placing the motor in operative connection with a source of electrical supply so as to be driven as a motor, contact for con-

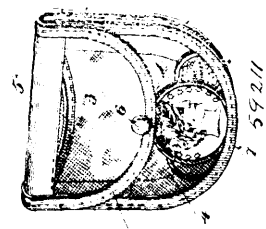
necting the source of electrical supply to an auxiliary field coil of such machine, a reversing switch for reversing the relation of armature and field, and contacts and brushes for coupling them as a generator to an electric circuit and including in said circuit a regulating device. 6th. In an electric brake system, the combination of means for placing the motor in operative connection with a source of electrical supply so as to be driven as a motor, contacts for connecting the source of electrical supply to an auxiliary field coil of such machine, a reversing switch for reversing the relation of armature and field, contacts and brushes for coupling them as a generator to an electric circuit, and means for a automatically coupling the auxiliary field coil to the armature circuit when over the flow of current in the main source falls below a predetermined amount. 7th. In an electrical brake system, the combination of means for placing a motor in operative connection with a source of electrical supply, contacts for including the source of electrical supply with an auxiliary field coil only of the motor or motors, a short-circuiting device for cutting out the brake magnets at a predetermined time, a reversing switch, and means for opening the short circuit around the brake magnets. 8th. In an electric brake system, the combination of a motor having main and auxiliary field coils with contacts for including the auxiliary field in the trolley circuit when the motor is not propelling the car. 9th. In an electric brake system, the combination of a dynamo-electric machine for propelling and braking the vehicle, an auxiliary field coil for maintaining the field magnetization, and automatic means for shifting the connections of the field coil from the main source of supply to the armature of the dynamo-electric machine. 10th. In an electric motor, for propelling and braking the vehicle, the combination of main and auxiliary field coils, and means for connecting the auxiliary field coil to the main source of supply or the motor armature. 11th. In an electric motor, for propelling and braking a vehicle, the combination of main and auxiliary field coils, and current-controlled means for shifting the connections of the auxiliary field coil from the source of supply to the armature of the motor upon failure of said source. 12th. In an electric brake system, the combination of a controller for regulating the supply of energy to the motors and the brakes, an auxiliary field coil on the motor for maintaining a certain amount of field magnetization, contacts for including this coil in circuit with the source of supply, and a current-controlled device for shifting the connections from one source to another upon failure of the first. 13th. The combination of an electric motor having main and auxiliary field coils, means for reversing the relation between the armature and fields, and automatic means for shifting the connections of the auxiliary field coil from one source of supply to another. 14th. In a controller for electric motors, the combination of contacts for regulating the supply of energy to the power side of the system, contacts for regulating the supply of energy to the brake side of the system, brushes and connections for establishing various combination in the circuit relations, certain of the brushes making contact with one side of the system when the circuit is interrupted, and automatic means for changing the connections of the auxiliary field coils from the source of supply to the armatures of the motors upon failure of the said source. 15th. The combination with a dynamo-electric machine, of main and auxiliary field coils, contacts for establishing circuit relations between the source of supply and the dynamo-electric machine, contacts for establishing circuit relations between the dynamo-electric machine and brakes, and current controlled means for automatically changing the auxiliary field coil from the trolley circuit to the armature of the dynamo-electric machine. 16th. In an electric brake system, the combination of contacts for regulating the supply of energy to the brakes, brushes in engagement with certain of the contacts in the off position of the controller, and automatic means for changing the circuit relations at the time the controller is in the off position. 17th. In an electric brake system, the combination of a controller for regulating a motor used to propeller brake a vehicle, main and auxiliary field coils on the motor, automatic means for changing the connections of the auxiliary field coil, and means for interrupting the circuit relation of the auxiliary field coil and armature when the motor is propelling the car. 18th. In an electric brake system the combination of a controller for regulating the supply of current to a dynamo electric machine when propelling or braking a car, main or auxiliary field coils on the dynamo electric machine, and automatic means carried by the controller for shifting the connections of the auxiliary field coil from the trolley to the armature of the dynamo electric machine. 19th. In an electric brake system, the combination of a dynamo electric machine having main and auxiliary field coils, contacts for including the auxiliary field coil in either the trolley or armature circuit, and a shunting device for the brake magnets for preventing their acting at a certain time. 20th. In an electric brake system, the combination of a motor having main and auxiliary field coils, a controller for regulating the energy of the system, current controlled means for including the auxiliary field coil in circuit with the source of supply or the motor armature, and a device for momentarily shunting the brake magnets before the current from the motor armature is supplied thereto for the purpose of braking the vehicle.

Claim. 1st. A machine of the class described, provided with a punch-stock fitted to slide in the head, a pressure-pin carried by



the said punch stock, and a coupling for carrying the punch and screwing on the said punch-stock, to press the said pin in engagement with the head and to clamp the punch-stock in place on the head, substantially as shown and described. 2nd. A machine of the class described, having a head provided with a dovetailed slot, a punch-stock, having a central hole therethrough and fitted to slide in said slot, a cap-screwing upon said punch-stock, and a punch having an enlarged section fitting within said cap and a bearing connection with the head through the hold in the punch-stock, substantially as described. 3rd. A machine of the class described, provided with a base-block formed with a longitudinally extending dovetailed groove, a bolt having a head adjustable in the said groove, and a stripper engaged by the said bolt, and formed at its rear end with a foot resting on the said base-block, substantially as shown and described. 4th. A machine of the class described, provided with a base-block formed with a longitudinally extending dovetailed groove, a bolt formed with a dovetailed head fitted to slide in the said groove, a stripper engaged by the said bolt and a gauge resting on the said block and engaged on the top by the said stripper to securely hold the gauge in place on the base-block, substantially as shown and described. 5th. A machine of the class described, provided with a base-block formed with a longitudinally extending dovetailed groove, a bolt formed with a dovetailed head fitted to slide in the said groove, a stripper engaged by the said bolt, a gauge resting on the said block and engaged on the top by the said stripper to securely hold the gauge in place on the base-block, and pins held transversely adjustable in the said gauge and adapted to be locked in place by eye bolts on the gauge, as set forth. 6th. A machine of the class described, provided with a head having a longitudinally extending dovetailed groove, a dovetailed punch-stock fitted to slide in the said groove, and formed with a threaded projection, a coupling screwing on the said projection and carrying the punch, and a pin fitted to slide in the said stock and adapted to be engaged by the punch to move the pin against the head upon screwing up the coupling and drawing the stock in firm contact with the head to lock the stock in place, substantially as shown and described. 7th. A machine of the class described, provided with a head having a longitudinally extending dovetailed groove, a dovetailed punch-stock fitted to slide in the said groove, and formed with a threaded projection, a coupling screwing on the said projection and carrying the punch, and a pin fitted to slide in the said stock and adapted to be engaged by the punch to move the pin against the head upon screwing up the coupling and drawing the stock in firm contact with the head to lock the stock in place, the said pin being formed with a head for taking up the strain from the punch, substantially as shown and described. 8th. A machine of the class described, having a punch-stock fitted to slide upon the head, and having a hole therethrough in the line of motion and giving access to the head, a cap screwing upon the punch-stock, and a punch having an enlarged section within said cap and a bearing connection with the head through said hole, whereby the punch and punch stock are firmly held upon the head, substantially as described.

No. 59,211. Purse. (Bourse.)



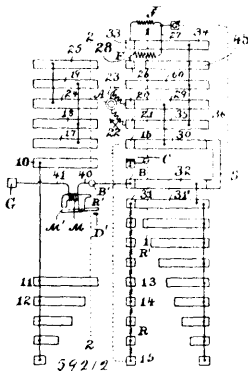
No. 59,210. Gang Punch. (Empoite-pièce.)

Levi Fisher, Brantford, Ontario, Canada, 7th March, 1898; 6 years. (Filed 21st January, 1898.)

Edwin L. Prickett, Mount Holly, New Jersey, U.S.A., 7th March, 1898; 6 years. (Filed 25th January, 1898.)

Claim.—As a new article of manufacture, a purse comprising the front, back and flap of transparent, flexible material, a bellows-shaped gusset of uniform width extending continuously around the side and bottom edges of the front and back and united thereto, a transverse hinge-web united to the gusset at the back and to one edge of the flap, and a fastener for confining the free edge of the flap to the front, said gusset and the hinge-web being joined to the front, back and flap to expose the same and permit a practically unobstructed view of the contents of the purse, substantially as described.

No. 50,212. Electric Brake. (*Frein électrique.*)



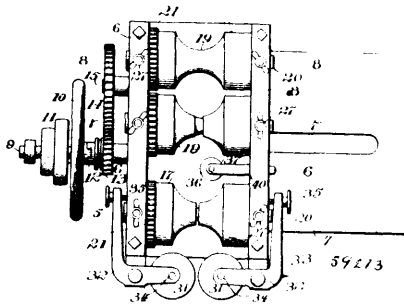
Elmer Ambrose Sperry, Cleveland, Ohio, U.S.A., 7th March, 1898; 6 years. (Filed 17th February, 1897.)

Claim 1st. In an electric brake system, the combination of a dynamo electric machine having a series and shunt field coil adapted for propelling and braking the vehicle, with means for maintaining a field magnetization at the time the dynamo electric machine is not affecting the motion of the vehicle. 2nd. In an electric brake system, the combination of a motor for propelling and braking the vehicle, with an auxiliary field coil for energizing the field magnets at the time the motor is not affecting the propulsion of the vehicle. 3rd. The combination with an electric motor, of an auxiliary field coil, and means for automatically connecting the coil in circuit with the motor when the source of supply is interrupted. 4th. The combination of an electric motor having main and auxiliary field coils, means for reversing the relation between the armature and fields, and means for connecting the auxiliary field coil to the armature at a time when the motor is not affecting the propulsion of the car. 8th. In a controller for electric motors, the combination of contacts and connections for regulating the supply of energy to the power side and to the brake side of the system, an auxiliary field coil, and brushes and connections for establishing various combinations in the circuit relations, certain of the brushes engaging with the contacts when the power and brake circuits are interrupted, for the purpose of energizing the auxiliary field coil. 6th. In an electric controller, the combination of contacts for regulating the supply of current to the motor or motors, contacts for regulating the supply of energy to the brake circuit, brushes for establishing connection between the motor circuit and the contacts, and a field coil for energizing this field of the motor in the off position of the controller. 7th. The combination with an electric motor, of an auxiliary field coil of relatively high resistance, and brushes and contacts for including the said coil in circuit with the motor armature at the off position of the controller. 8th. In a controller for electric motors, the combination of contacts for establishing circuit connections with the motors when propelling the vehicle, other contacts for regulating the supply of current to the brakes, and means for establishing a connection between the armature and an auxiliary field coil between the times when the power circuit is broken and the brake circuit established. 9th. In combination, an electric motor, main and auxiliary field coils, contacts and brushes for establishing connection between the main field and the armature of the motor, and other contacts for establishing circuit relation between the armature and the auxiliary field coil. 10th. In combination, an electric motor provided with main and auxiliary field coils, a controller for regulating the current flowing through the motor, means for reversing the relation between armature and field coils, and contacts and brushes for connecting the auxiliary field coil in circuit with the armature. 11th. In an electric brake system, the combination of means for placing the motor in operative connection with a source of electrical supply so as to be driven as a motor, means for reversing the relation of the armature and field of the motor and operatively connecting the armature circuit to an auxiliary field coil or coils on the motor, and means for coupling the armature to a low resistance field circuit of the motor. 12th. The combination, with a series electric machine having an auxiliary field coil, of means for disconnecting either one or the other of such field coils from the armature circuit, and a reversing switch for the armature circuit. 13th. The combination, with a series electric machine having an auxiliary field coil, of means for disconnecting either one or the

other of such field coils from the armature circuit, a plurality of exterior circuits, and means for coupling them successively to the said motor. 14th. In an electric controller, the combination of a plurality of circuits, certain of which are for regulating the current, supplied to the motors, certain others for regulating the energy supplied to the brakes, resistance included in the field magnet circuit, and the said resistance plus other resistance included in the brake circuit. 15th. The combination of a dynamo electric machine for propelling and braking purposes, means for including the machine in circuit with the source of supply when it is desired for propelling purposes, and for disconnecting it from the supply and converting it into a generator for braking purposes, and an automatic switch for closing and opening a shunt circuit around the field coils of the dynamo electric machine when acting as a generator for preventing an increase of current over a predetermined amount. 16th. The combination of a dynamo electric machine mounted on a vehicle for propelling and braking purposes, a controller for including the machine in circuit with the source of supply and regulating the energy supplied thereto, and for disconnecting the machine from the supply, converting it into a generator and regulating the energy supplied thereby to the brake circuit, and an automatic device for shunting a part of the current around the machine when it is acting as a generator. 17th. The combination of a dynamo electric machine for propelling and braking purposes, a controller for regulating the machine when employed for propelling and braking purposes, and an automatic switch controlled by the current in the brake circuit for closing a shunt around the field coils of the machine when it is acting as a generator. 18th. The combination of an electric motor, a controller provided with means for converting it into a generator, an auxiliary field coil, means for establishing connection between the field coil and the armature, and an automatic shunting device for the generator. 19th. In combination with a series electric motor, a plurality of exterior circuits, means for changing the circuit connection of said motor from one to the other of the said exterior circuits, a device for converting the motor into a generator, operated by such means, and means for automatically weakening the field magnetization of the generator without directly altering the current in the armature, said means responsive to current produced by the generator when such current rises or tends to rise above a predetermined amount. 20th. In combination with a series electric motor, a plurality of exterior circuits, means for changing the circuit connection of the said motor from one to the other of the said exterior circuits, a device for converting the motor into a generator operated by such means, and an automatic shunt for the field magnet coil of such generator, the said shunt being responsive to the current in one of said exterior circuits. 21st. The combination of an electric motor, a controller for regulating the same, a plurality of circuits extending therefrom, more resistance included in one circuit than in the others, main and auxiliary field coils for the motor, and means for connecting them in any desired relation with the armature. 22nd. The combination of a series wound dynamo electric machine for propelling and braking purposes, means for including it in circuit with the source of supply when it is desired to propel the vehicle, and for disconnecting it from the supply and converting it into a generator, and an automatic limit switch for shunting the same when it is used for braking. 23rd. The combination of a vehicle, a dynamo electric machine for propelling and braking purposes mounted thereon, means for including the machine in circuit with the source of supply when employed for driving the load and for disconnecting it from the supply and converting it into a generator for braking purposes, and for regulating the braking energy when so connected, and automatic means controlled by the current in the brake circuit for preventing the locking of the vehicle wheels by means of the brake magnets. 24th. The combination of a dynamo electric machine for propelling and braking a vehicle, with means for maintaining a field magnetization at all times when the vehicle is in motion. 25th. The combination in an electric brake system, of brakes on the motor car connected in parallel, brakes on the trailer connected in a group, and a resistance for regulating the supply of energy to the group. 26th. The combination in an electric brake system, of brakes on the motor car connected in parallel, brakes on the trailer connected in group, the members of the group connected in parallel with each other, and the group as a whole connected in series with the source of supply. 27th. In an electric railway system, the combination of means for placing the motor in operative connection with a source of electrical supply so as to be driven as a motor, means for reversing the relation of the field and armature of the motor and operatively connecting the armature circuit to an auxiliary field coil or coils on the motor, circuit's for establishing connection between the motor and the brakes, means for closing a shunt around the brakes, and means for simultaneously coupling the armature circuit with a low resistance field coil and opening said shunt. 28th. In an electric brake system, the combination of a dynamo electric machine for propelling and braking the car, a controller provided with contacts and brushes for establishing desired circuit relations, and a shunting device for the brake magnets. 29th. In an electric brake system, the combination of a dynamo electric machine for propelling and braking the car, a controller provided with contacts and brushes for establishing connections between the dynamo electric machine and the brake magnet coils, and a mechanical shunting device for shunting the brake magnet coils at a predetermined time.

No. 59,213. Sheet Metal Seaming Machine.

(Machine à joindre le métal en feuille.)

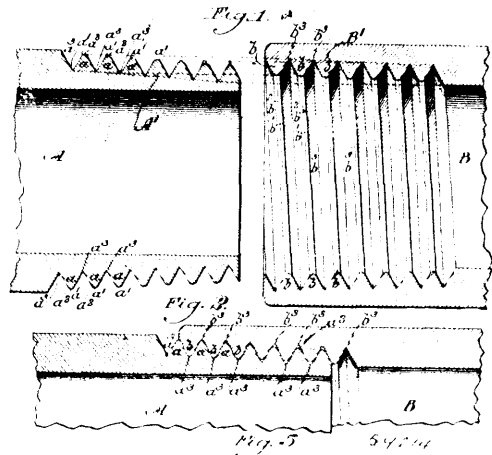


Philip Brownell Alexander, Springfield, Massachusetts, U.S.A.,
7th March, 1898; 6 years. (Filed 11th December, 1897.)

Claim. 1st. In a machine of the kind specified, a plurality of sets of rolls being adapted to receive a conductor having a circular body portion with one edge provided with an inner radial lip and the other edge provided with an outer radial lip, and a tangential flange, and consisting of a supporting roll and a face roll, provided with a groove, the depth of said groove being equal to the width of the seam to be turned, and the said groove being provided with straight and inclined walls. 2nd. In a machine of the kind specified, a plurality of sets of rolls for forming and turning a lock seam, the first of said sets of rolls being adapted to receive a conductor having a circular body portion with one edge provided with an inner radial lip and the other edge provided with an outer radial lip and a tangential flange, and consisting of a supporting roll and a face roll provided with a groove having a straight wall situated upon the side thereof from which the seam is to be turned, and an inclined wall situated upon the side toward which the seam is turned. 3rd. In a machine of the kind specified, a plurality of sets of rolls for forming and turning a lock seam, the first of said sets of rolls being adapted to receive a conductor having a circular body portion with one edge provided with an inner radial lip and the other edge provided with an outer radial lip and a tangential flange, and consisting of a supporting roll and a face roll provided with a groove having a straight wall situated upon the side thereof from which the seam is to be turned and an inclined wall situated upon the side toward which the seam is turned, said inclined wall meeting the outer face of the roll by a curved portion. 4th. In a machine of the kind specified, a plurality of sets of rolls for forming and turning a lock seam, the second of said sets of rolls consisting of a supporting roll and a face roll having a groove provided with a straight inclined rear wall, and a deep wall on the side thereof toward which the seam is turned, said inclined rear and deep walls being connected by a curved portion. 5th. In a machine of the kind specified, a plurality of sets of rolls for forming and turning a lock seam, the second of said sets of rolls consisting of a supporting roll and a face roll having a groove, said groove being wider than the seam to be turned and having a straight inclined rear wall and a deep wall upon the side thereof toward which the seam is to be turned, said deep wall connecting with the rear wall by a curved portion and with the outer face of the wall by a sharp corner. 6th. In a machine of the kind specified, a plurality of sets of rolls for forming and turning a lock seam, the first of said sets of rolls being adapted to receive a conductor having a circular body portion with one edge provided with an inner radial lip and the other edge provided with an outer radial lip and a tangential flange, and consisting of a supporting roll and a face roll having a deep and narrow groove, the second of said sets of rolls consisting of a supporting roll and a face roll having a shallow and wide groove, and a third set of said rolls consisting of a supporting roll and a plain face roll. 7th. In a machine of the kind specified, a plurality of sets of rolls for bending or turning down the stock forming the seam, and a single presser roller situated between the first and second sets of rolls and adapted to come in contact with the overlapping flange on one side of the partially bent lock seam, and against the side toward which the seam is turned. 8th. In a machine of the kind specified, a plurality of sets of rolls, each of said sets of rolls consisting of a supporting roll and a face roll mounted in sliding bearings, springs for lifting said bearings, and set-screws for moving said bearings in an opposite direction. 9th. In a machine of the kind specified, a plurality of sets of rolls, each of said sets of rolls consisting of a supporting roll and an adjustable face roll, and a presser roller adjustably secured to the frame of the machine and situated between the first and second sets of rolls and adapted to come in contact with the overlapping flange on one side of the partially bent lock seam, and against the side toward which the seam is turned. 10th. In a machine of the kind specified, a stationary plate, a movable plate, and a plurality of sets of rolls carried by rotatable spindles mounted in bearings upon said plates, said spindles being provided

at one end with headed trunnions that are mounted in the bearings of the stationary plate, with straight trunnions mounted in the bearings of the movable plate, and with a longitudinal key to enter a groove upon the roller. 11th. In a machine of the kind specified, a plurality of sets of supporting and face rolls, and a vertically and laterally adjustable pressure roller mounted upon the frame of said machine, and situated between the first and second sets of said rolls. 12th. In a machine of the kind specified, a plurality of sets of supporting and face rolls, and a presser roller mounted at the upper end portion of the upright slide that is situated within an upright guide in the frame of the machine, and between the first and second sets of said rolls, and provided with an adjusting and set-screw. 13th. In a machine of the kind specified, a plurality of sets of supporting and face rolls, and a presser roller mounted at the upper end portion of the upright slide that is situated within an upright guide in the frame of the machine, and between the first and second sets of said rolls, a slot in said upright guide, and a headed set-screw extending through said slot and fastened to said frame, and adjusting screws upon said frame engaging said slide. 14th. In a machine of the kind specified, the combination with the supporting and face rolls of a pair of conical guide-rollers situated in front of the same, each of said guide-rollers consisting of a rotatable roller having a wide overhanging upper end portion and a narrow inwardly extending lower end portion, adapted to embrace the conductor passing therethrough at and below its centre. 15th. In a machine of the kind specified, the combination with the supporting and face rolls of a pair of guide-rollers situated in front of the same, said guide-rollers being mounted upon pivoted levers, and set-screws for adjusting said pivoted levers. 16th. In a machine of the kind specified, the combination with the supporting and face rolls of a pair of guide-rollers mounted upon the inner ends of levers pivoted to the frame of the machine, the outer end portion of said levers being situated close to the outside of said frame and being provided with set-screws engaging the same. 17th. In a machine of the kind specified, a pair of guide-rollers supported upon upright axes, a plurality of sets of rolls having horizontal axes and adapted to form and turn a lock seam, the first of said sets of rolls consisting of a supporting roll and a face roll provided with a deep and narrow groove having straight and inclined side walls, the depth of said groove being equal to the width of the seam to be turned, the second of said sets of rolls consisting of a supporting roll and a face roll having a shallow and wide groove provided with an inclined rear wall, a deep wall on the side thereof toward which the seam is turned, said inclined rear and deep walls being connected by a curved portion, the third of said sets of rolls consisting of a supporting roll and a plain face roll, and a presser roller situated between the first and second sets of rolls and on the side thereof toward which the seam is turned, said presser roller being adapted to come in contact with the side of the partially turned lock seam.

No. 59,214. Screw Coupling. (Raccor à vis.)



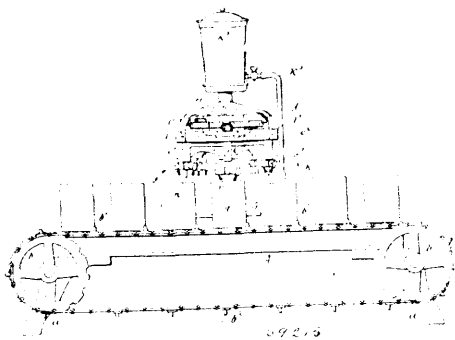
Clinton Allen Higbee, Philadelphia, Pennsylvania, U.S.A., 7th
March, 1898; 6 years. (Filed 20th January, 1898.)

Claim. 1st. A screw coupling, consisting of male and female members, one or both members having their threads formed on conical surfaces and said coupling members having also their threads formed to fit against each other on the sides while leaving open spaces between them at the outer and inner apices, all substantially as specified, and so that the screwing together of the members under power will upset the metal of the threads and change the thread form, causing the metal to flow into and close the open spaces aforesaid. 2nd. A screw coupling, consisting of male and female members, one or both members having their threads formed on conical surfaces and said coupling members having also their thread formed to fit against each other on the sides while leaving their outer apices, truncated so as to leave an open space between them and the inner apices of

the coupled thread, all substantially as specified, and so that the screwing together of the members under power will upset the metal of the threads and change the thread form causing the metal to flow into and close the open spaces aforesaid. 3rd. A screw coupling, consisting of male and female members, one or both members having their threads formed as on conical surfaces and said surfaces being of different angular relation to the axes of the coupling, the threads of the coupling members being further characterized by a formation of their apices to leave a space between the tops and bottom of the thread when screwed together and before the form of the threads is changed and to permit the change in the form of the threads as the male and female members are screwed together with sufficient force. 4th. A screw coupling, consisting of male and female members, one or both members having their threads formed as on conical surfaces and said surfaces being of different angular relation to the axes of the coupling, the threads of the coupling members being further characterized by the truncation of their outer apices so as to leave a space between the tops and bottoms of the threads when screwed together and before the form of the threads is changed and to permit of the change in the form of the threads as the male and female members are screwed together with sufficient force.

No. 59,215. Fluxing Machine.

(Machine à distribuer les acides à souder.)

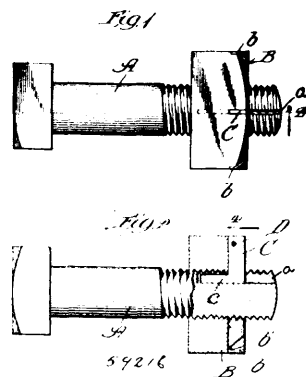


Millard Jay Hawkins, Hoopston, Illinois, U.S.A., 7th March, 1898; 6 years. (Filed 19th January, 1898.)

Claim. 1st. The combination with a can conveyor, of a movable brush carrier provided with an actuating device which is engaged by the moving cans and receives its motion therefrom, whereby the carrier is driven from said conveyor through the intervention of the cans and remains at rest when no can engages with the actuating device, substantially as set forth. 2nd. The combination with the can conveyor, of a movable brush carrier provided with a number of fluxing brushes which are engaged successively with the cans on the conveyor, and a movable shifting arm connected with the brush carrier and adapted to project into the path of the cans, so that the brush carrier is operated by the forward movement of the cans, substantially as set forth. 3rd. The combination with the can conveyor, of a rotary brush carrier provided with brushes which are engaged successively with the cans on the conveyor and a rotary star wheel connected with said carrier and having its arms moved successively into the path of the cans on the conveyor, substantially as set forth. 4th. The combination with a can conveyor, of a rotary carrier provided with a brush which is adapted to engage with a can, and a guide whereby the can is caused to move in the same arc in which the brush moves while the latter is in engagement with the can, substantially as set forth. 5th. The combination with a can conveyor, of a rotary carrier provided with a brush which is adapted to engage with a can, and guide rail arranged on opposite sides of the can conveyor and adapted to engage with opposite sides of the can and cause the same to move forward in the same arc in which the brush moves while the latter is in engagement with the can, substantially as set forth. 6th. The combination with the can conveyor and the rotary carrier, of an annular row of rotary fluxing brushes journaled in said carrier for bringing them successively into engagement with the cans and each brush being capable of rotation about its own axis, for distributing the flux on the cans, substantially as set forth. 7th. The combination with the can conveyor and the rotary carrier of an annular row of brush spindles journaled in said carrier so as to rotate bodily around the axis of the carrier, and a stationary gear wheel which meshes with gear pinions on the brush spindles and whereby each of the latter is caused to rotate individually about its own axis while rotating with the carrier, substantially as set forth. 8th. The combination with a can conveyor and a rotary carrier arranged above the same, of brushes mounted in said carrier and capable of vertical movement independent of each other while rotating with said carrier and shifting mechanism whereby each brush is lowered when it has arrived over a can to apply the flux and is raised from the can after the flux has been applied, substantially as set forth. 9th. The combination with a can conveyor and a rotary carrier arranged above the same, of

brushes mounted in said carrier and capable of vertical movement independent of each other while rotating with said carrier, and a guide ring provided with a depression over said conveyor, whereby the brushes are successively lowered and raised as they pass over the conveyor and the cans carried thereby, substantially as set forth. 10th. The combination with a can conveyor, a rotary carrier and a brush mounted in said carrier and capable of vertical movement while rotating therewith of a flux pan arranged underneath the path of the brush, and shifting mechanism whereby the brush is lowered into the pan to receive the flux and raised out of the pan while being carried over the same, substantially as set forth. 11th. The combination with a can conveyor, a rotary carrier, and a brush mounted on said carrier and capable of vertical movement while rotating therewith, of a flux pan arranged underneath the path of the brush, shifting mechanism whereby the brush is lowered into the pan to receive the flux and raised out of the pan while being carried over the same, and shifting mechanism whereby the brush is raised when it has arrived over a can to apply the flux and is raised after the flux has been applied, substantially as set forth. 12th. The combination with a can conveyor, a rotary carrier, and a brush mounted in said carrier and capable of vertical movement while rotating therewith, of a flux pan arranged underneath the path of the brush, and a guide ring provided with a depression over said pan and with a depression over said conveyor, whereby the brush is raised and lowered in passing over said pan, and subsequently in passing over said conveyor, substantially as set forth. 13th. The combination with the can conveyor of a rotary carrier, a brush mounted in the same and capable of vertical movement, a lifting lever connected with said brush and pivoted on the carrier, and a stationary guide engaging with the lifting lever, and provided with elevated and depressed portions whereby the brush is raised and lowered while rotating with the carrier, substantially as set forth. 14th. The combination with the can conveyor and the flux pan of a vertical arbor arranged adjacent to said conveyor and pan, a horizontal rotating carrier journaled on said arbor and arranged to swing over said conveyor and pan, an annular row of vertical spindles journaled in said carrier and provided with fluxing brushes, a stationary gear-wheel secured to the arbor and meshing with pinions on the upper end of the spindles, lifting levers loosely connected with the spindles and pivoted with their inner ends on the carrier, and a guide ring connected with the arbor and provided with a bearing surface on which the outer ends of said levers are supported, said bearing surface having depressed portions over the conveyor and pan and elevated portions between the depressed portions, substantially as set forth. 15th. The combination with the spindle provided with a laterally projecting arm, of a clamp pivotally secured to said arm by a transverse screw, and provided with a recessed jaw, and a brush clamped between said jaw and arm, substantially as set forth.

No. 59,216. Nut-Lock. (Arrêt-écrou.)

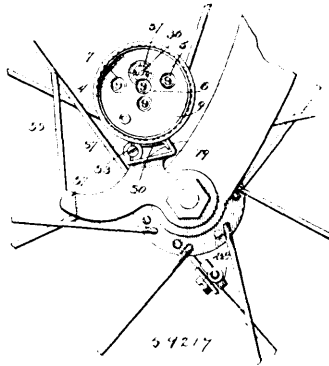


Worth Ernest Caylor, Chicago, Illinois, U.S.A., 8th March, 1898; 6 years. (Filed 24th February, 1898.)

Claim. 1st. The combination of a shaft having a longitudinal slot in its slide, a member mounted on the shaft having a radial groove crossing the radial groove on its face, a key adapted to be received in the longitudinal slot in the shaft and the radial groove in the face of the member mounted thereon, and a spring extending out from the key and adapted to be sprung into the groove crossing the radial groove in the face of the member, substantially as described. 2nd. The combination of a bolt having a longitudinal slot in its threaded end, a nut having a radial groove and a groove crossing the radial groove in its outer face, a key adapted to be received in the slot in the bolt and the radial groove in the nut, and a spring extending out from the key and adapted to be sprung into the groove crossing the radial groove in the face of the nut, substantially as described. 3rd. The combination of a bolt having a longitudinal slot in its threaded end, a nut having a radial groove and a groove crossing the radial groove in its outer face, a key adapted to be received in the slot in the bolt and the radial groove

in the nut and having an extending portion received into the slot in the bolt to a greater depth than the radial groove in the nut, and a spring extending out from the key and adapted to be sprung into the groove crossing the radial groove in the face of the nut, substantially as described.

No. 59,217. Cyclometer. (Cyclometre.)



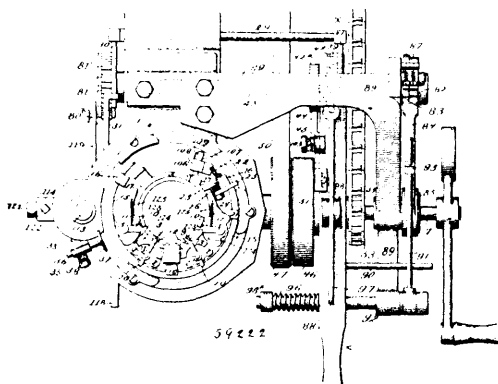
Edward Griffen Dorchester, Geneva, New York, U.S.A., 8th March, 1898; 6 years. (Filed 24th January, 1898.)

Claim. 1st. In a cyclometer, the combination with a casing and an operating-shaft, of a plurality of parallel co-axially mounted registering rings exposed at contiguous points, the ring of lowest denomination being operatively connected with said shaft to receive forward rotary movement therefrom, and connections between the rings, including continuous racks on the rings of higher denomination, contiguous segmental or mutilated racks on the rings of lower denomination, and pinions, each arranged in operative relation with the mutilated rack of one ring and a continuous rack of the contiguous ring, the pinion which meshes with the continuous rack of the ring of highest denomination having means whereby backward rotation may be manually imparted thereto, and means for communicating backward rotation from a ring of higher to the next of lower denomination, substantially as specified. 2nd. In a cyclometer, the combination with a casing and an operating shaft, of parallel registering rings exposed at a common point, of the ring of lowest denomination being operatively connected with said shaft, means for communicating motion from one ring to the next of higher denomination including continuous racks on the rings of higher denomination contiguous mutilated racks on the rings of lower denomination, and pinions each meshing with the continuous rack of one ring and the mutilated rack of the contiguous ring of lower denomination, and springs carried by each ring of lower denomination to engage shoulders or projections on the contiguous ring of higher denomination, and adapted to communicate backward rotation from the ring of higher to the next of lower denomination, the pinion which is in mesh with the continuous rack of the ring of highest denomination having a key-seat for engagement by an exteriorly applied key, whereby the rings may be re-set, substantially as specified. 3rd. In a cyclometer, the combination with a casing having an open front side, and a removable face-plate provided with inspection openings, an operating-shaft mounted in the casing, an annular bearing-frame removably fitted in and having a sliding connection with the casing, and held in place against sliding movement by means of said face-plate, long distance registering devices inclosed within the bearing-frame, having discs exposed at openings in the face-plate, and operatively connected with said shaft, registering rings mounted upon the exterior surface of the bearing-frame and exposed at contiguous points through an opening in the side wall of the casing, connections between the ring of lowest denomination and said shaft, and means for communicating motion from each ring of lower to next higher denomination, substantially as specified. 4th. In a cyclometer, the combination with a casing having an open front side fitted with a removable face-plate provided with inspection openings, an operating-shaft, a removable annular bearing-frame fitted in and having a sliding connection with the casing by means of lugs fitting in seats in the wall of the casing, and adapted to be locked in said seats against sliding movement by means of the face-plate, long distance registering devices inclosed within the bearing-frame, having discs exposed at the openings in the face-plate or casing, and operatively connected with said shaft, registering rings mounted on the exterior surface of the bearing-frame and exposed at contiguous points through an opening in the wall of the casing, and operating devices for said rings, substantially as specified. 5th. In a cyclometer, the combination with a casing and an operating shaft mounted therein, the casing being provided in its front and side walls with inspection openings, annular trip-registering devices exposed at the openings in the side wall of the casing and long distance registering devices inclosed by the annular trip-registering devices for exposure through the openings in the front

wall of the casing, said registering devices being operatively connected with said shaft for simultaneous movement, and means for resetting or assembling the members of the trip-registering mechanism without affecting the long-distance registering mechanism, substantially as specified. 6th. In a cyclometer, the combination with a cylindrical casing and an operating shaft mounted therein, the casing being provided in its front and side walls with inspection openings, of an annular bearing frame arranged within and connected with the casing, long-distance registering devices inclosed within the bearing-frame, having discs exposed at the openings in the front wall of the casing and operatively connected with said shaft, trip-registering rings mounted exteriorly upon said bearing-frame for exposure through the openings in the side wall of the casing, and operatively connected with said shaft, and exterior means for resetting or assembling the members of the trip-registering mechanism, substantially as specified. 7th. In a cyclometer, the combination of a casing having an open front side, a removable face-plate, a flanged collar engaging the side wall of the casing to secure the face-plate in place, a bearing-frame fitted within the casing and having projecting lugs engaging seats or notches in the walls of the casing, the open front ends of said seats or notches being closed by the face-plate, an operating shaft mounted in the casing, long distance registering devices mounted within said bearing-frame and operatively connected with the said shaft, and trip-registering mechanism mounted exteriorly upon the bearing-frame, exposed through a side opening in the casing and operatively connected with said shaft, substantially as specified. 8th. In a cyclometer, the combination with a casing and an operating-shaft, of an annular bearing frame arranged within the casing, long distance registering devices inclosed within the bearing-frame in operative connection with said shaft and having discs exposed through openings in the front wall of the casing, trip-registering rings mounted exteriorly upon said bearing-frame and operatively connected with said shaft, connections between the rings including continuous and mutilated racks respectively on the rings of higher and lower denomination, and pinion engaging the continuous rack of one ring and the contiguous mutilated rack of the adjacent ring, said pinions having angular hubs, brake-springs arranged in permanent engagement with the hubs of the pinions, and means adapted to be manually operated, for communicating backward rotation to the pinion which is in engagement with the continuous rack of the ring of highest denomination, substantially as specified. 9th. In a cyclometer, the combination with a casing and an operating shaft mounted therein, the casing having a removable front wall provided with inspection openings, of an annular bearing-frame removably fitted in the casing, parallel front and rear partitions arranged transversely within the bearing-frame, a registering spindle mounted in bearings in said partitions and carrying a fixed transmitting gear and an exposed index, an intermediate or counter-shaft mounted upon and parallel with the rear partition for communicating motion from the operating-shaft to said spindle, a plurality of stub-shafts carried by the front partition and projecting toward the front wall of the casing, registering discs having their sleeves mounted respectively upon said stub-shafts and the registering-spindle and exposed respectively through said inspection openings in the front wall, and means for communicating motion from the registering-spindle to the disc of lowest denomination, and from each disc of lower to the next of higher denomination, substantially as specified. 10th. In a cyclometer, the combination of a casing provided with front and side inspection openings, an operating shaft mounted axially in the casing, a registering-spindle mounted parallel with the shaft and having a fractions-index traversing a dial on the front wall, long-distance registering devices including discs exposed respectively through the inspection openings in the front wall, the disc of lowest denomination being operatively connected with said spindle, and the discs of lower denomination being operatively connected respectively with contiguous discs of higher denomination, a plurality of registering rings mounted upon a bearing encircling and concentric with said operating shaft and exposed through the inspection opening in the side wall of the casing, a ratchet wheel mounted concentrically with said shaft and connected for simultaneous movement by intermediate gearing with the registering-spindle, springs carried by the registering ring of lowest denomination to engage the teeth of said ratchet wheel and adapted to slip idly thereover when reverse motion is imparted to the ring, means for communicating motion from each ring to the next of higher denomination, assembling devices for communicating motion from each ring to the next of lower denomination when reverse motion is imparted thereto, and setting devices for communicating backward motion to the ring of highest denomination, substantially as specified. 11th. In a cyclometer, the combination with registering devices inclosed in a casing, of a bracket having a transverse seat or guide, a slide attached to said casing and fitted in the guide, and a feed-screw mounted in the guide and engaging the slide to advance the casing toward or from the plane of a vehicle wheel, substantially as specified. 12th. In a cyclometer, the combination with registering devices inclosed in the casing, of a bracket having a transverse dove-tailed guide provided at one side with a shield having terminal half-bearings, a slide attached to the casing and fitted in the guide, said slide being provided at one side with a threaded half-sleeve, and a feed-screw having journal portions mounted in the bearings at the extremities of said shield and engaging the half-sleeve of the slide to advance the casing toward

head, as specified. 2nd. In combination, a nail consisting of a body and split head, and an eyelet secured within a carpet for engagement therewith, as specified. 3rd. In combination with a nail of the character described, an eyelet having the internal diameter thereof reduced at its lower portion, substantially as and for the purposes set forth.

No. 59,222. Knitting Machine. (Machine à tricoter.)



John Barton Paxton and Ellis Irwin O'Neill, both of Philadelphia, Pennsylvania, U.S.A., 8th March, 1898; 6 years. (Filed 19th January, 1898.)

Claim. 1st. The combination with a cam carrier, its knitting cams, a needle picker, and means tending to maintain said picker normally in action, of a slide provided with a recessed or cam surface so constructed as to engage the picker and maintain it out of action when in one position, and when in another position to release the picker and permit it to return to action, substantially as described. 2nd. The combination with a cam carrier, its knitting cams, a needle picker, and means tending to maintain said picker normally in action, of a slide provided with a recessed or cam surface so constructed as to engage the picker and maintain it out of action when in one position, and when in another position to release the picker and permit it to return to action, and means tending to maintain said slide normally in one position, substantially as described. 3rd. The combination with a cam carrier, its knitting cams, a needle picker, and means tending to maintain said picker normally in action, of a slide provided with a recessed or cam surface so constructed as to engage the picker and maintain it out of action when in one position, and when in another position to release the picker and permit it to return to action, means tending to maintain said slide normally in one position, and means to lock the slide temporarily in the other position, substantially as described. 4th. The combination with the cam carrier, its knitting cams, a needle picker, and means tending to maintain said picker normally in action, of a slide provided with a recessed or cam surface so constructed as to engage the picker and maintain it out of action when in one position, and when in another position to release the picker and permit it to return to action, means tending to maintain said slide normally in one position, means to lock the slide temporarily in the other position, and means for automatically unlocking the slide, substantially as described. 5th. The combination with a cam carrier, its knitting cams, a set of needle lifters, a set of needle depressors, and means tending to maintain said lifters and depressors normally in action, of a slide provided with recessed or cam surfaces so constructed that in one position the slide engages the lifters holding them inactive while the depressors are active, and in another position it engages the depressors holding them inactive while the lifters are active, substantially as described. 6th. The combination with a cam carrier, its knitting cams, a set of needle lifters, a set of needle depressors, and means tending to maintain said lifters and depressors normally in action, of a slide operatively connected with said lifters and depressors and provided in its upper edge at points adjacent to the respective lifters with V-shaped recesses, and in its lower edge, adjacent to the respective depressors, with step-like recesses composed each of two portions on different horizontal planes, substantially as described. 7th. The combination with a cam carrier, its knitting cams, a set of needle lifters, a set of needle depressors, and means tending to maintain said lifters and depressors normally in action, of a device for controlling the idle or active positions of said lifters and depressors at pre-determined intervals, a spring to maintain said device in one position, a vibratory latch-arm supported in proximity to said device and adapted to engage it and lock it in another position, and automatic mechanism for disengaging said arm, substantially as described. 8th. The combination, with a cam carrier, its knitting cams, a set of needle lifters, a set of needle depressors, and means tending to maintain said lifters and depressors normally in action, of a device to cause and maintain the active or inactive positions of said lifters or depressors at pre-determined intervals, means to maintain said device in one position,

a latch-arm supported in proximity to said device and adapted to engage it and lock it in another position, a vibratory lever, a head thereon movable into and out of the path of said latch-arm, a pattern mechanism, and operative connections intermediate said mechanism and lever, substantially as described. 9th. In a circular knitting machine, the combination, with the cam cylinder, its knitting cams, and the needle cylinder, of a shaft geared with said cam cylinder, continuously operating mechanism for driving said shaft, means for throwing said mechanism into and out of gear with the shaft, a sprocket wheel loosely mounted on said shaft, a second shaft, a sprocket wheel thereon, a chain connecting said wheels, means for continuously reciprocating the sprocket wheel on said second shaft, and means operatively connecting the sprocket wheel first-named with its shaft, substantially as described. 10th. In a circular knitting machine, the combination, with the cam cylinder, its knitting cams, and the needle cylinder, of a shaft geared with said cam cylinder, continuously operating mechanism for driving said shaft, a pattern chain, its supporting and operating parts, means actuated by the chain at pre-determined intervals to effect the disengagement of said mechanism from the shaft, a sprocket wheel loosely mounted on said shaft, means whereby it may be operatively engaged therewith, a second shaft, a sprocket wheel thereon, a chain connecting the sprocket wheels, and means for continuously reciprocating the sprocket wheel on said second shaft, substantially as described. 11th. In a circular knitting machine, the combination, with the cam cylinder, its knitting cams, and the needle cylinder, of a shaft geared with said cam cylinder, fast and loose pulleys on said shaft, a continuously driven belt, means for automatically transferring said belt from the fast to the loose pulley at pre-determined intervals, a sprocket wheel loosely mounted on said shaft, means for engaging it with the fast pulley when the belt is on the loose pulley, a second shaft, a sprocket wheel thereon, a chain connecting the sprocket wheels, and means for continuously reciprocating the sprocket wheel on said second shaft, substantially as described. 12th. In a circular knitting machine, the combination, with the cam cylinder, its knitting cams, and the needle cylinder, of a shaft geared with said cam cylinder, fast and loose pulleys on said shaft, a continuously driven belt, means for driving the same, the belt-shipper frame, a spring tending to maintain the same normally adjacent to the loose pulley, a latch-arm constructed and arranged to maintain said frame adjacent to the fast pulley, a reciprocable pin engaged with the arm and adapted to operate the same, a lever in proximity to said pin, and pattern mechanism adapted to actuate said lever at pre-determined intervals, substantially as described. 13th. In a circular knitting machine, the combination, with the cam cylinder, its knitting cams, and the needle cylinder, of a shaft geared with said cam cylinder, fast and loose pulleys on said shaft, a continuously driven belt, means for driving the same, a belt-shipper frame, a spring tending to maintain the same normally adjacent to the loose pulley, a slotted latch-arm pivotally connected with said frame, means engaged by said arm to maintain the frame adjacent to the fast pulley, a vertically reciprocable pin extending through the slot in and engaging with said arm, and means for depressing the pin, substantially as described. 14th. In a circular knitting machine, the combination, with its driving-shaft, of mechanism for imparting thereto continuous rotary motion, means for maintaining said mechanism normally inactive, devices to maintain said mechanism temporarily in action to effect the continuous rotary movement of said shaft, a second shaft, pattern mechanism thereon, operative connections intermediate the same and said devices, a ratchet-wheel on said second shaft, a pawl to co-act with said wheel, means for reciprocating the pawl, mechanism for imparting to the driving-shaft reciprocating rotary motion when the first-named mechanism is inactive, a device for throwing the reciprocating mechanism into action, and means on said device for thereupon moving the pawl out of action, substantially as described. 15th. In a circular knitting machine, the combination, with its driving-shaft, or mechanism for imparting thereto continuous rotary motion, automatic shifting means for rendering said mechanism inactive at certain times, a second shaft, a pattern device thereon, operative connections between said device and the shifting means, a ratchet-wheel on said latter shaft, a pawl to co-act with said wheel, means for reciprocating the pawl, mechanism for imparting to the driving-shaft reciprocating rotary motion when the mechanism first-named is inactive, a device for throwing the reciprocating mechanism into action, and means on said device for thereupon moving the pawl out of action, substantially as described. 16th. In a circular knitting machine, provided with narrowing and widening mechanism, the combination, with the driving-shaft, of mechanism for imparting thereto continuous rotary motion, and means for rendering said mechanism inactive at certain times, mechanism for imparting to the driving-shaft reciprocating rotary motion when the first-named mechanism is inactive, a device for throwing the reciprocating mechanism into action, a second shaft, pattern mechanism thereon for controlling said narrowing and widening mechanism, a ratchet-wheel on said shaft, a pawl to co-act with said ratchet-wheel, means for reciprocating said pawl, and means on said device for throwing the pawl into and out of action substantially as described. 17th. In a circular knitting machine provided with narrowing and widening mechanism, the combination, with the driving shaft, of mechanism for imparting thereto continuous rotary motion, means for rendering said mechanism inactive at certain times, mechanism for imparting to the driving shaft

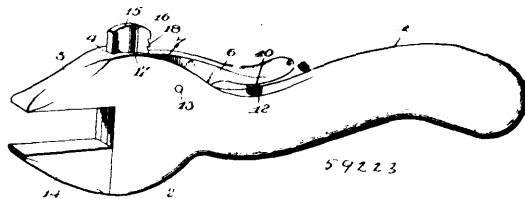
reciprocating rotary motion when the first-named mechanism is inactive, a lever for throwing the reciprocating mechanism into action, a second shaft, pattern mechanism thereon for automatically controlling said narrowing and widening mechanism, a ratchet wheel on said shaft, a pawl to co-act with said wheel, means for reciprocating the pawl, and a latch-arm on said lever adapted to support the pawl and move it out of action, substantially as described. 18th. In a circular knitting machine, provided with narrowing and widening mechanism, the combination, with the driving shaft, of mechanism for imparting thereto continuous rotary motion, means for rendering said mechanism inactive at certain times, mechanism for imparting to the driving shaft reciprocating rotary motion when the first-named mechanism is inactive, a hand-lever for throwing the reciprocating mechanism into action, a spring tending to maintain said lever in a normal position, a latch-lever mounted on the hand-lever provisions whereby said latch-lever holds the hand-levers in opposition to the spring, a vibratory arm depending from said latch-lever, a pawl on said arm, means for actuating the arm, a second shaft, a pattern chain thereon for controlling the said narrowing and widening mechanism, and a ratchet wheel on said shaft adapted to be operated by the pawl substantially as described. 19th. The combination, with a cam carrier and its cams, of a diagonally disposed needle deflecting cam movable into and from the interior of the carrier, and means tending to maintain said cam normally retracted, the acting edge of said cam being so inclined in respect to its path of movement that when it is moved into the carrier the cam will engage the needle heels in its path and be locked temporarily in action thereby, substantially as described. 20th. The combination, with a cam cylinder and its cams, of a diagonally disposed needle deflecting cam movable into and from the interior of the cylinder in a path eccentric to the axis of said cylinder, the forward or acting edge of the cam being beveled radially in relation to the latter, and a spring tending to maintain said cam normally retracted, substantially as described. 21st. The combination, with a cam cylinder, its cams, a needle cylinder and its needles, of an eccentric head, means for supporting the same, means operatively connecting said head with the needle cylinder, a lever connected with said head, one arm of which lever constitutes a handle, a pattern mechanism for actuating the other arm of the lever, and adjustable means for limiting the movement of said lever substantially as described. 22nd. The combination, with a cam cylinder, its cams, a needle cylinder and its needles, of an eccentric head, means for supporting the same, means operatively connecting said hand with the needle cylinder, and automatic mechanism for turning said head, substantially as described. 23rd. The combination, with a cam cylinder, its cams, a needle cylinder and its needles, of an eccentric head, a vertically-adjustable support for said head, means for securing said support in positions of vertical adjustment, and means operatively connecting said head with the needle cylinder, substantially as described. 24th. The combination, with a cam cylinder, its cams, a needle cylinder and its needles, of an eccentric head, a support therefor, operative connection between said head and the needle cylinder, a lever on the shaft of the eccentric, and pattern mechanism for actuating said lever, substantially as described. 25th. The combination, with a cam cylinder, its knitting cams, and a needle depressor including a picker arm, of a plate in rear or the said arm, a support for said plate, and a spring to hold the plate yieldingly toward and adjacent to said arm, substantially as described. 26th. The combination, with a cam cylinder, its knitting cams, and a needle depressor embodying a spring-actuated picker arm and a fixed rearward cam with which it co-acts, of a movable plate having its forward edge inclined like the cam and supported adjacent thereto, and means tending to hold said plate yieldingly beyond the cam, substantially as described. 27th. The combination, with a cam carrier, its knitting cams, the needle support and its needles, of a series of loosely mounted vibratory sinkers, arranged to alternate with and work between the needles, such of said sinkers being provided with an inwardly extending stitch engaging portion at its upper end, and with an outwardly extending cam-engaging portion, and normally fulcrumed at its lower inner side, and spring means acting upon the said sinkers to perform the double function of holding them yieldingly against the stitches and yieldingly against their normal fulcra, whereby during the ordinary operation of the machine the sinkers will rock upon their normal fulcra when actuated by the cam or by the spring means, but when a sinker engages thick or irregular thread it will be rocked upon the thread as a fulcrum and the lower portion of the sinker will move outwardly by actuation of the cam and the thread will not be cut by the sinker, substantially as described.

No. 59,223. Wrench. (Clé à croch.)

William Edward Pugsley, Lincoln, Nebraska, U.S.A., 8th March, 1898; 6 years. (Filed 17th January, 1898.)

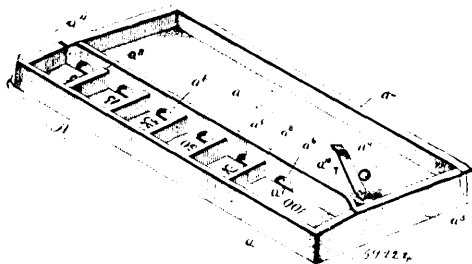
Claim.—1st. A wrench, consisting of a handle, an integral or stationary jaw extending longitudinally from one end of said handle, a jaw movable to and from the stationary jaw, an integral guide-rod for said movable jaw, projecting through, and adapted to reciprocate in, the stationary jaw, and provided with teeth on the side thereof adjacent the handle, and a spring-actuated lever fulcrumed in the handle on the toothed side of said rod and opposite

to the stationary jaw, and adapted to engage the toothed rod, substantially as described. 2nd. A wrench, consisting of a handle,



an integral or stationary jaw extending longitudinally from one end of said handle, a jaw movable to and from the stationary jaw, an integral guide-rod for said movable jaw, projecting through, and adapted to reciprocate in, the stationary jaw, and provided with teeth on the side thereof adjacent the handle, said handle being provided with a longitudinal slot exposing the toothed side of, and arranged in the same plane with, said rod, and situated opposite the stationary jaw, and a flat spring-actuated lever fulcrumed in the handle and adapted to engage any tooth thereof, said lever, when so engaged, being adapted to seat in the bottom of said slot approximately beneath the engaged tooth and close to the rod, substantially as described.

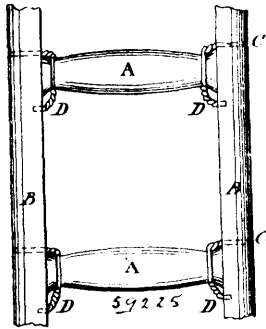
No. 59,224. Game Apparatus. (Appareil de jeu.)



Henry N. Halpenny, Minnedosa, Manitoba, Canada, 8th March, 1898; 6 years. (Filed 6th December, 1897.)

Claim.—1st. A game apparatus, comprising a game board, having a large compartment, small compartments communicating with said large compartment, and a movable guard mounted in said large compartment, substantially as described. 2nd. A game apparatus, comprising a game board having a large compartment, small compartments communicating with said large compartment, a guard pivotally mounted in said large compartment near one end, and a stop to limit the movement of said guard, substantially as described. 3rd. In a game apparatus, the combination with a base, side pieces and end pieces, of a partition arranged lengthwise of said base, lateral partitions arranged between said partition and one of said side pieces, openings formed in said partition, and a guard pivotally mounted on said base, near one end, substantially as described. 4th. A game apparatus, comprising a game board having a large compartment, small compartments communicating with said large compartment, a guard pivotally mounted in said large compartment, and a ball or marble adapted to be moved from said large compartment to one of said small compartments, substantially as described. 5th. A game apparatus, comprising a game board having a large compartment, small compartments communicating with said large compartment, a guard pivotally mounted in said large compartment, a ball or marble adapted to be moved from said large compartment to one of said small compartments, and means for preventing the return of said ball or marble to said large compartment, substantially as described. 6th. A game apparatus, comprising a game board having a base, side and end pieces, said base having its top inclined for a portion of its width, a partition arranged lengthwise of said base, said partition being provided with a series of openings, lateral partitions arranged between said partition and one of said side pieces, said lateral partitions being placed on said inclined portion, a guard pivotally mounted in said base, and a ball or marble, substantially as described.

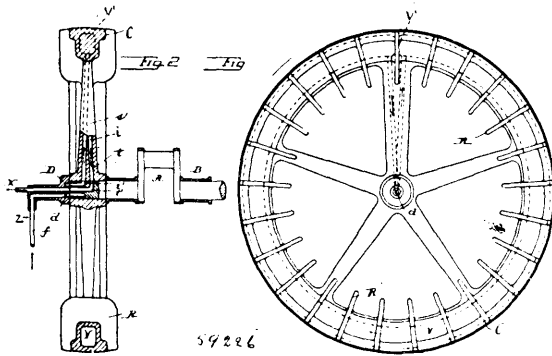
No. 59,225. Ladder. (Echelle.)



Thomas Harris, Goderich, Ontario, Canada, 8th March, 1898; 6 years. (Filed 24th December, 1897.)

Claim.—The appaching of rungs A on sides B by means of wires D, substantially as and for the purposes hereinbefore set forth.

No. 59,226. Fastening for Cylinders and Chambers of Petroleum Engines. (Attache pour cylindres de machines à pétrole.)



Emil Capitaine, Frankfort on the Maine, Germany, 9th March, 1898; 6 years. (Filed 13th December, 1897.)

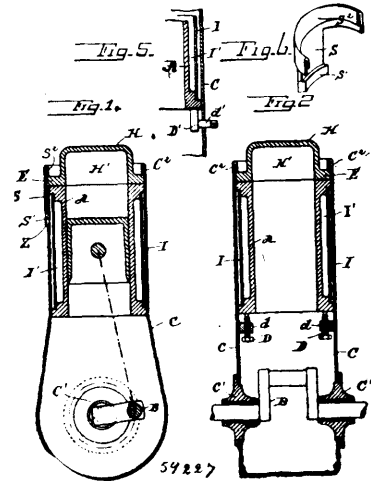
Claim.—1st. In combination with the water-jacket of an explosion-engine cylinder, of a rotating fly-wheel having an annular chamber in its rim, inlet and outlet passages in its spoke leading to said annular chamber in the rim, and connecting passages between the fly-wheel and the water-jacket whereby the rotation of the wheel will cause a constant circulatory flow of water through the rim of the same and through the connected water-jacket, substantially as described. 2nd. Mechanism operating to cause an alternate inflow and discharge of water through the cooling jacket of an explosion-engine cylinder, in unison with each power and return stroke, consisting of the combination with such cooling jacket, of inlet and discharge pipes leading thereto and to corresponding passages in the driving shaft and spoke of a fly-wheel, and a fly-wheel having such passages and an annular chamber in its rim communicating therewith, substantially as described. 3rd. The combination with the fly-wheel having an annular chamber V in its rim, inlet and outlet passages in one of its spokes, a shaft with passages communicating with the passages in the spoke, and a metal body D with inlet and discharge passages, said parts and passages being combined and arranged, substantially as and for the purpose described.

No. 59,227. Cooling Device for Gas and Petroleum Engines. (Appareil à refroidir pour machines à gaz et pétrole.)

Emil Capitaine, Frankfort on the Maine, Germany, 9th March, 1898; 6 years. (Filed 13th December, 1897.)

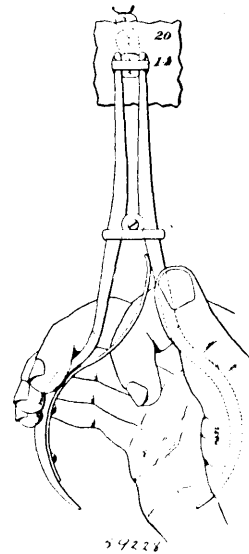
Claim.—1st. In engines of the character described, the combination with a sheet-metal case or housing, a cylinder mounted therein, and a jacket between said case or housing and the cylinder and arranged to form a cooling-chamber around the latter, of an explosion head or cover adapted to register with the open end of the cylinder and held in position in one direction by an inward projection on the case or housing, and in the other direction by adjustable means tending to force the cylinder against said head or cover, substantially as described. 2nd. In engines of the character described, the combination of a piston cylinder, an explosion head or cover fitted to and registering with the open end of said cylinder, a surrounding case or housing having means which engage said head or

cover to hold it in position in one direction and means for holding said parts in the opposite direction, substantially as specified. 3rd.



In engines of the character described, the combination with the housing or casing C, of piston cylinder A, explosion head E, a removable extension end S adapted to secure the explosion head to the casing and cylinder in one direction and means such as eccentric D and screw D' to adjustably lock said parts in register in the opposite direction, substantially as described.

No. 59,228. Clamp for Dentical Dams. (Griffe dentaire.)



Daniel Murless, Holyoke, Massachusetts, U.S.A., 9th March, 1898; 6 years. (Filed 31st January, 1898.)

Claim.—1st. A clamp comprising two substantially semi-cylindrical members connected together by a member having its outer faces in alignment with the outer faces of said semi-cylindrical members. 2nd. A clamp comprising two concavo-convex members connected together by a spring member, each of said concavo-convex members having an exterior groove for the reception of rubber dam. 3rd. A clamp comprising two curved or substantially semi-cylindrical members having their lower edges inwardly bent or curved to form clamping-jaws and also having such lower edges transversely curved and exteriorly bevelled, and a spring member connecting said curved members and having its outer side faces in alignment with the outer side faces of the curved members.

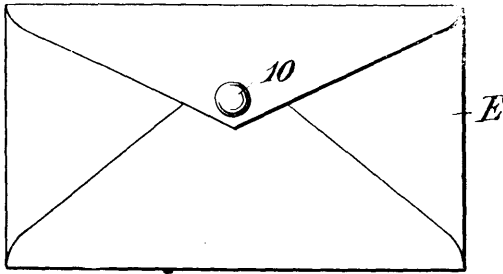
No. 59,229. Letter Sealing Device.

(Appareil à sceller les lettres.)

Magloire St. Pierre, Ste Pie, Quebec, Canada, 9th March, 1898; 6 years. (Filed 13th December, 1897.)

Claim.—1st. A device for sealing envelopes, consisting of two parts, one a disc, concave-convex in shape and having prongs projecting from its concave surface, and the other of larger diameter, plano-convex in shape and made hollow, a perforation in the centre

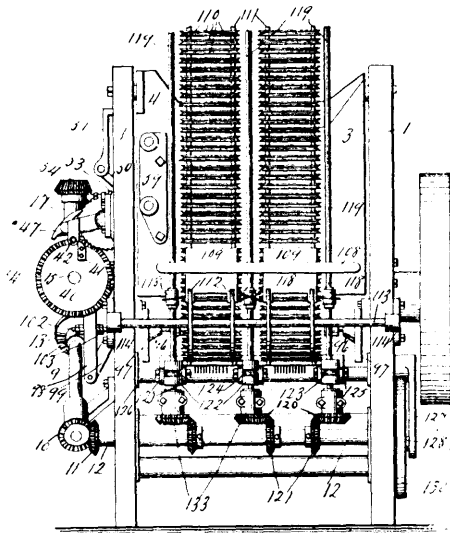
of its flat surface, and an annular groove near its periphery, the prongs of the said disc entering the said perforation and the edge



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of the said disc the annular groove, substantially as set forth. 2nd. In a device for sealing envelopes and the like, the combination with a disc having prongs on its inner side of the hollow plano-convex part 10, the flat surface having a central perforation 11 and the annular groove 12, substantially as set forth. 3rd. In a device for sealing envelopes and the like, the combination with the concave-convex disc 6, of the prongs 7 projecting from near the centre of the inner side of the said disc, the ends 8 of the said prongs being pointed and turned slightly outwards, substantially as set forth.

No. 59,230. Match Splint Cutting Machine.
(Machine pour éclisses d'allumettes.)



59230

Edward Mead Lockwood, Oswego, New York, U.S.A., 9th March, 1898; 6 years. (Filed 28th January, 1898.)

Claim.—1st. In a match-splint cutting machine, feed-worms and a slat-chain for receiving and removing the splints, having in combination endless metallic chains, slats supported thereon in pairs, having their ends obliquely bevelled at an angle corresponding to the pitch of the feed-worms, means for supporting the chains, and means for supporting and rotating the worms. 2nd. In a match-splint cutting machine, endless slat-chains for receiving and removing the splints, consisting of pairs of metallic chains and slats of corresponding form secured thereon in pairs, said slats having their ends obliquely bevelled at an angle corresponding to the pitch of the feed-worm to engage with the worms, and in combination therewith worms of uniform pitch carried on vertical shafts, and means for rotating said shafts and worms. 3rd. In a splint cutting machine, the combination of metallic chains arranged in pairs, rotating supports therefor, slats secured and carried on said chains in pairs of corresponding form, said slats having the contact face of one corrugated, and of the other covered with yielding material such as felt, and having their ends outwardly extending beyond the chains bevelled at a small angle to their flat surfaces corresponding to the pitch of the feed-worms to engage with said worms, a spring in connection with each pair of slats also supported on said chains for maintaining the slats in contact, worms provided with threads of uniform pitch, longer than one full turn, and having thin or sharpened ends for engaging between the bevelled ends of the slats to force them apart for receiving the splints, and to feed the chains, vertical shafts supporting said worms and means for rotating said shafts.

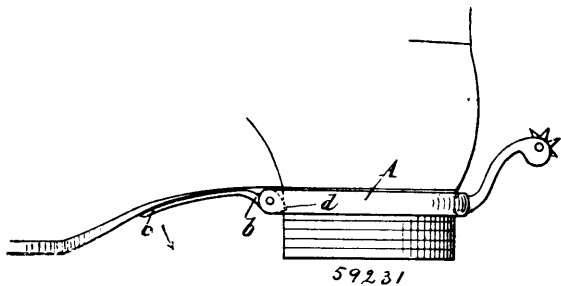
4th. In a match-splint cutting machine, the combination of endless chains, rotating supports therefor, slats arranged on said chains in pairs for receiving between them and removing the cut splints, feed-worms engaging with the ends of said pairs of slats, shafts supporting said worms, means for rotating said shafts and worms, and means for elevating said shafts and worms temporarily during a portion of each rotation to counteract the feed of the chains by the rotation of said worms. 5th. In a machine for cutting match-splints, the combination of endless chains, slats arranged thereon in corresponding pairs for receiving and removing the splints, feed-worms supported on vertical shafts for engaging with the ends of said slats to force them apart and to feed said slats and chains, means for rotating said shafts and worms, and means for alternately elevating and depressing them during each rotation. 6th. In a machine for cutting match-splints, endless chains carrying pairs of slats, means for supporting the chains, feed-worms of uniform pitch engaging with said slats, mechanism for supporting and rotating the worms to feed the chains, and means for intermittently moving said worms in the direction of the feed of the chain. 7th. In a machine for cutting match-splints, mechanism for receiving and removing the cut splints, having in combination endless chains, rotating supports therefor, slats supported thereon in pairs, rotating feed-worms to engage with the ends of said slats, shafts supporting said worms, collars secured on said shafts, arms secured on a rock-shaft and engaging with said collars, and means for rocking the rock shaft to elevate the vertical shafts and worms during a portion of each rotation, and means for rotating continuously said vertical shafts and worms. 8th. In a machine for cutting match-splints, having in combination endless chains, slats supported thereon in pairs, springs, rotating feed-worms to engage with the ends of said slats, vertical shafts supporting said worms, collars provided with circumferential grooves secured on said vertical shafts below the worms, a horizontal rock-shaft provided with arms engaging with said grooves, means for rocking the rock-shaft to elevate shafts and worms temporarily during rotation, and means for continuously rotating said shafts and worms. 9th. In a machine for cutting match-splints, mechanism for receiving and removing the cut splints, having in combination endless chains, slats supported thereon in pairs, rotating feed-worms to engage with the ends of said slats, vertical shafts supporting said worms, collars provided with circumferential grooves secured on said vertical shafts below the worms, a horizontal rock-shaft carrying double arms provided on their ends with pins engaging with said grooves, a rock-arm secured to the outer end of the rock shaft provided with an anti-friction roller engaging with the cam groove on a wheel secured to the end of the horizontal front shaft, bevel gears sustained in boxes and adapted to receive squared lower ends of vertical shafts to make a sliding connection therewith, and bevel gears on said front shaft engaging with said bevel gears. 10th. In a machine for cutting match-splints, the knives of usual form, and mechanism for reciprocating said knives, having in combination a knife-plate supporting the knives, a bed-plate provided with guides on its edges for receiving and supporting the knife-plate, suitable supports for supporting said bed-plate on the frame, cars on the knife-plate, a wrist-pin provided with a spherical centre and circumferential groove secured to said cars, a main shaft provided with a double crank having a corresponding spherical centre and circumferential groove, a connecting rod consisting of socket members fitted and secured to said spherical portions with pins engaging with said circumferential grooves, a rod reversely threaded for engaging with said socket members and connecting the crank-shaft to knife-plate, and mechanism for shifting said bed-plate from side to side in order to shift the knives to cut different portions of the block. 11th. In a match-splint cutting machine, the knives of usual form and mechanism for supporting and reciprocating said knives to cut the splints from the downwardly fed blocks, having in combination the knife-plate supporting the knives provided with rearwardly extending ears, an operating shaft provided with a double crank, an adjustable connecting rod secured to said crank and to said ears, a bed-plate provided with guides on its side edges for supporting the knife-plate, an adjusting strip arranged between the edge of the knife-plate and the guide on the edge of the bed-plate, adjusting screws for adjusting said strip, transverse horizontal rods clamped to the bottom of the bed-plate fitted to openings in side plates and studs on the supporting frame, and mechanism to shift said bed-plate a short distance from side to side, shifting the knives to cut a different portion of the block at each alternate cut. 12th. In a machine for cutting match-splints, the knives of usual form and mechanism for shifting said knives to cut different portions of the block, having in combination the knife-plate, the bed-plate provided with guides on its side edges for supporting said knife-plate, rods clamped to the bottom of the bed plate, side plates secured on a suitable supporting frame provided with studs and perforations through said studs for receiving freely said rods, a shifting-lever having double jaws pivotally secured to an arm on the frame, a cam engaging with said jaws, means for rotating said cam, and a connection between the shifting-lever and bed-plate. 13th. In a machine for cutting match-splints, the knives of usual form and mechanism for shifting said knives to cut different portions of the block, having in combination a knife-plate, a bed plate provided with guides on its side edges for receiving and supporting said knife-plate, integral grooved flanges on the underside of said bed plate, horizontal cross-rods clamped in the grooves of said flanges, side plates secured to

a suitable supporting frame provided with inwardly extending studs and perforations through said studs and plates for receiving the ends of said cross-rods, a shifting-lever pivotally secured on an arm on the frame formed on its upper end with double jaws, a rotating cam engaging with said jaws, means for rotating said cam, and a connection between said shifting-lever and the bed-plate. 14th. In a machine for cutting match-splints, the knives of usual form and mechanism for shifting said knives to cut different portions of the block, consisting of the combination of a knife-plate, a bed-plate provided with guides on its side-edges for receiving and supporting said knife-plate, integral grooved flanges on the underside of said bed-plate, horizontal cross rods clamped in the grooves of said flanges, side plates secured to a suitable supporting frame provided with inwardly extending studs, and perforations through said studs and side plates for receiving the ends of said cross rods, a shifting-lever pivotally secured on an arm on the frame formed on its upper end with double jaws, a rotating cam engaging with said jaws, means for rotating said cam, a rod secured to an ear on the underside of the bed plate adjacent to said shifting-lever, and adjustably secured to said shifting-lever by lock-nuts, and set-screws secured to the side plate for limiting the transverse motion of the bed-plate and the shift of the knives. 15th. In a machine for cutting match-splints, the knives of usual form, and mechanism for horizontally reciprocating and shifting said knives, having in combination the knife-bars to which the knives are secured, a knife-plate supporting said knife-bars and provided with rearwardly extending ears and reinforcing ribs, a bed-plate provided with guides on its side edges for receiving and supporting the knife-plate, an adjusting strip arranged between the edge of the knife-plate and one of said guides, adjusting screws secured to the outer edge of the bed-plate for adjusting said strip, a horizontal shaft formed with a double crank provided with a ball-and-socket bearing, a wrist-pin also provided with ball-and-socket bearing secured to the rearwardly extending ears on knife-plate, an adjustable connecting-rod provided with sockets fitted to said ball-and-socket bearings connecting said crank to said wrist-pin, integral grooved flanges on the underside of the bed-plate, transverse rods clamped in said grooves, side plates secured on supporting frame provided with inwardly extending bosses, and perforations through said bosses for receiving the ends of the transverse rods and permitting them to slide freely therein, a shifting-lever pivotally secured to an arm on the frame and provided at its upper end with jaws, a cam engaging with said jaws, means for rotating said cam and supporting it on the frame, and a connecting-rod secured to an ear on the bottom of the bed-plate and passing through a perforation in said shifting-lever, to which it is adjustably secured by double lock-nuts. 16th. In a machine for cutting match-splints, mechanism for guiding and feeding the blocks downwardly to the knives, having in combination the following elements: a suitable supporting frame, rear feed plate arranged transversely and vertically and secured to said frame near the front of the machine, a front feed-plate arranged parallel to said rear plate and adjustably bolted thereto, said plates provided with integral corresponding ribs on their inner faces, forming, when the plates are secured in position, inclined channels for receiving the blocks through openings in the side of the frame, journal bearings in said plates, rollers journaled therein for engaging with the blocks, one pair to each channel, means for rotating the rollers of each pair in opposite directions, the lower portion of the channels in said front plate being cut away, spring plates arranged therein, yieldingly and adjustably secured by bolts and springs to said rear plate for engaging with the uncut portion of the block after it has passed out of engagement with said feeding rollers, horizontally reciprocating knives and means for operating them to cut the blocks. 17th. In a machine for cutting match-splints, the combination of parallel and transversely arranged feed-plates provided with channels for the blocks, one of said plates having the lower portion of each channel cut away, and a spring-plate fitted to said cut-out portion and secured yieldingly and adjustably to the other plate, said spring-plate having the upper portion of its face which makes contact with the block bevelled, and its lower portion formed with a central depression, horizontally reciprocating knives and means for operating them to cut the blocks. 18th. In a machine for cutting match-splints, in combination with the parallel feed-plates, forming when secured together an inclined channel or channels for guiding the blocks to the knives and one of said plates having the lower portions of said channels cut away, spring-plates fitted to said cut-out portions, bolts for securing said spring-plates to the opposite feed plate, spring arranged in connection with said bolts on the outer face of said plates to which the spring-plate is secured, for forming a yielding connection therewith, said spring-plate having the upper portion of its contact face bevelled, and the lower portion thereof cut away on an incline to correspond with the inclination of said channel, horizontally reciprocating knives and means for operating them to cut the blocks. 19th. In a machine for cutting match-splints, the combination of front and rear plates transversely arranged parallel to each other near the front of the machine, and provided on their inner faces with inclined, integral ribs, forming inclined, parallel channels for guiding the blocks to the knives, said front plate having the lower portion of said channels cut away, spring-plates fitted to the cut-out portions of the front plate, and provided with bolts for securing them adjustably to the rear plate, spiral springs strung on the bolts on outer face of the

rear plate, making in connection with nuts a yielding connection between the rear plate and the spring-plates, said spring-plates having the upper portion of their contact faces bevelled to receive the block, and the lower portion plane and cut out on an angle to correspond with the inclination of the channels, horizontally reciprocating knives and means for operating them to cut the blocks. 20th. In a machine for cutting match-splints, the combination of parallel feed-plates for confining and guiding the blocks to the knives, feed-rollers journaled in said plates for positively feeding the blocks, a lever having an outwardly extending, lower arm and an upwardly extending, upper arm, a pawl pivotally supported on said lower arm, and a spring for holding it in engagement with a ratchet-wheel, an anti-friction roller also secured on said lower arm, a rotating-wheel provided with a cam engaging with said roller at each rotation of the wheel and rotating said ratchet-wheel intermittently, an extension on said upper arm, and a set screw secured in the frame for bearing against said extension to elevate and depress the lower arm of said lever for regulating the amount of feed of said ratchet-wheel, an adjustable dog in engagement with said ratchet-wheel, a pinion secured to the ratchet-wheel and rotating intermittently therewith, and a chain of gears engaging with said pinion and with gears on said feed-rollers to rotate the feed-rollers of the pairs in opposite directions to feed positively and intermittently the blocks. 21st. In a machine for cutting match-splints, the combination of a suitable supporting frame, transverse parallel feed-plates supported thereon for confining and guiding the blocks between them, rollers journaled in pairs in said plates provided with bevel gears on their upper ends for feeding the blocks, and in combination therewith mechanism for rotating said rollers, having in combination the following elements, a ratchet-wheel rotatably secured on the frame, a lever pivotally secured on the frame carrying pawl engaging with the ratchet-wheel, a rotating wheel secured on the frame and provided with a cam projection for engaging with said lever at each rotation of the wheel, operating to elevate the pawl to rotate the ratchet-wheel intermittently, a pinion secured to said ratchet-wheel and rotating therewith, bevel gears provided with hollow shafts journaled in a bracket secured to one of said feed-plates and engaging with bevel gears secured on one of each pair of the rollers journaled in said plate, corresponding bevel gears engaging with the other bevel gears of each pair and secured on solid shafts journaled in the bracket secured to the opposite feed-plate and also journaled in said hollow shafts with which they form a sliding and rotating connection, a gear secured on one of said solid shafts and engaging with said pinion, gears secured on said hollow shaft and an intermediate gear between them, to rotate said hollow shaft bevel gears and said solid shaft bevel gears simultaneously and rotate the feed-rollers in opposite directions to feed the blocks. 22nd. In a machine for cutting match-splints, the combination of a suitable supporting frame, longitudinally reciprocating horizontal knife-plate supporting the cutter knives, a horizontal transversely shifting bed-plate supporting the knife-plate, feed-plates forming channels for guiding the blocks to the knives, rollers journaled in said feed-plates for positively feeding the blocks, endless chains carrying pairs of slats for removing the cut-splints, and means for supporting said chains, worms engaging with said slats for forcing them apart to receive the splints and feed the chains, vertical shafts supporting said worms, arms secured on a rock-shaft engaging with said shafts for temporarily elevating them during rotation, and, in combination with these elements, means for operating them, consisting of the following elements: a main shaft provided with a double crank and a connecting-rod there between and the knife-plate for reciprocating said knife-plate, a side shaft provided with gears engaging respectively with a gear on said main shaft and with a gear on the front shaft, the front shaft provided with gears engaging with gears on the worm shafts for rotating said worm shafts and worms, and provided with a rotating wheel formed with a cam groove to rock the rock shaft to temporarily elevate said vertical shafts and worms, and an intermediate gear on said side shaft engaging with a gear on a short shaft journaled in the frame through which by intermediate mechanism the shift is communicated to the bed-plate, and through other intermediate mechanism an intermittent rotary motion to the feed-rollers. 23rd. In a machine for cutting match-splints, mechanism for guiding and feeding the blocks downwardly to the knives, having in combination the following elements: a suitable supporting frame, a transverse feed-plate secured thereto, a second parallel transverse plate secured adjustably to said first plate by means of bolts rotatably supported in the first plate and prevented from moving longitudinally therein by means of collars integral with the bolts near one end of each bolt, nuts on the opposite ends of the respective bolts, said bolts having one end screw-threaded to engage with the second plate, corresponding ribs on the inner faces of said plates, forming, when the plates are secured together, inclined channels for receiving the blocks through openings in the side of the frame, journal bearing on said plates, rollers journaled therein, one pair to each channel, and means for rotating the rollers of each pair in opposite directions to feed the blocks downwardly to the knives. 24th. In a machine for cutting match-splints, means for guiding the blocks to be cut downwardly to the knives, consisting of two parallel transverse plates provided with corresponding ribs on their inner faces, forming, when the plates are secured together, inclined channels for the blocks, one plate being fixed to the supporting frame of the machine and provided with elongated bearings, bolts journaled in said bearings and

screw-threaded on one end to engage with bearings on the other plate and to support said plate, each bolt having an integral collar adjacent to said screw-thread, and fitted to a depression in the end of its bearing, an angular portion toward the other end outside of the bearing, a sleeve fitted to said angular portion and having an angular exterior, and a nut screw-threaded to fit the bolt outside of said sleeve.

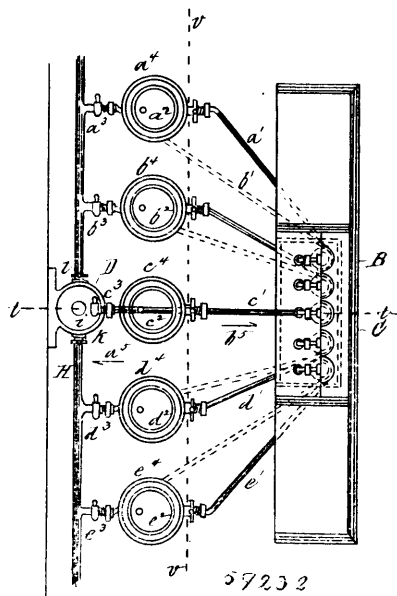
No. 59,231. Spur. (Eperon.)



Max Schiemangk, Berlin, Germany, 10th March, 1898; 6 years. (Filed 26th February, 1898.)

Claim.—A spur, consisting of a bow A adapted to embrace the heel and having a cross rod and a double armed lever turning on said rod and having a serrated edge, which on the other end of the lever being pressed against the sole of the shoe, engages with the heel and holds the spur in place.

No. 59,232. Apparatus for Cleaning Beer Pipes, etc. (Appareil pour nettoyer les tuyaux à bière, etc.)

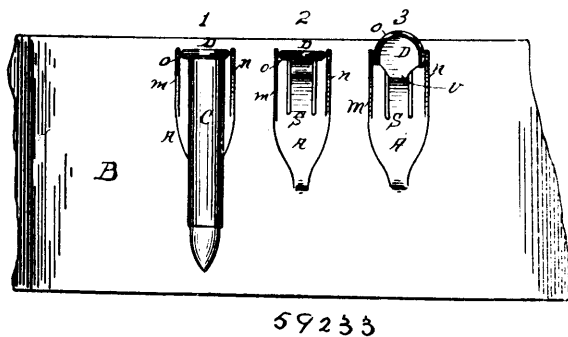


Vincenzo Bonzagni, Boston, Massachusetts, U.S.A., 10th March, 1898; 6 years. (Filed 21st February, 1898.)

Claim.—1st. An apparatus for cleaning beer pipes, etc., consisting of the following instrumentalities, viz.: a permanently located tank D having a cover-controlled opening *i* through which a cleansing material is introduced, an inlet *k* for receiving a water supply, an inlet *l* for the admission of air under pressure, an outlet *m*, and a main or service pipe H connected therewith and into which the cleansing agent is forced, said pipe H extending in proximity to the positions occupied by the beverage receptacles *a*² *b*² *c*² *d*² *e*² and a series of minor or branch pipes *a*³ *b*³ *c*³ *d*³ *e*³ projecting at intervals from the main cleansing pipe, at points along its length and contiguous to said receptacles, in combination with, corresponding in number to and with which their respective beverage draft pipes *a*¹ *b*¹ *c*¹ *d*¹ *e*¹ are adapted for immediate connection, when they are temporarily uncoupled from their beverage receptacles, whether the latter be empty, full, or partially full, a generator for supply the compressed air, branch pipes for conducting the same into the beverage receptacles for forcing the contents through the draft pipes *a*¹ *b*¹ *c*¹ *d*¹ *e*¹, said pipes being provided with stop cocks for permitting and arresting the flow of their respective contents, all constructed and arranged to operate substantially as described. 2nd. A permanently located tank D, its cover-controlled opening *i*, its water inlet *k*, its compressed air

inlet *l*, its cleansing agent outlet *m*, a main cleansing agent service pipe F and its series of minor or branch pipes *a*³ *b*³ *c*³ *d*³ *e*³ projecting at intervals therefrom at points contiguous to the beverage receptacles, in combination with, corresponding in number to, and with which their respective draft pipes *a*¹ *b*¹ *c*¹ *d*¹ *e*¹ are adapted for immediate connection, when uncoupled from their beverage receptacles, a generator for compressed air, a main air-pipe F connected therewith, and a series of branches *a*⁴ *b*⁴ *c*⁴ *d*⁴ *e*⁴ located contiguous to and entering the receptacles and corresponding in number thereto for supplying the necessary compressed air for forcing the beverages through their draft pipes to their draft cocks, the several pipes with their branches being provided with stop cocks for permitting and arresting the flow of their contents, constructed and arranged to operate, substantially as specified. 3rd. A tank D, its opening *i*, its inlets *k* *l*, its outlet *m*, a water supply pipe E, the main pipe F with its branches *a*³ *b*³ *c*³ *d*³ *e*³ through which the cleansing agent is forced, in combination with, corresponding in number to, and with which the draft pipes *a*¹ *b*¹ *c*¹ *d*¹ *e*¹ are adapted for immediate connection, a generator for the compressed air, a main air-pipe F, connected therewith and a series of branches *a*⁴ *b*⁴ *c*⁴ *d*⁴ *e*⁴ for conveying the compressed air, whereby the beverages are forced through their draft pipes to their draft cocks, and a means for heating the cleansing agent, suitable stop cocks being provided for permitting and arresting the flow of the contents of the pipes, operating as set forth. 4th. In combination a tank for containing the cleansing agent, its inlet *k* *l* and outlet *m* from which the cleansing agent is forced for the purpose stated, and an outlet *n* from which it is drawn for domestic uses, and the pipes E, F, G, H for conveying water compressed air and the cleansing agent, with their respective branch pipes *a*³ *b*³ *c*³ *d*³ *e*³ and *a*⁴ *b*⁴ *c*⁴ *d*⁴ *e*⁴ and draft pipes *a*¹ *b*¹ *c*¹ *d*¹ *e*¹, the said pipes being provided with suitable stop cocks, all arranged for operation as specified. 5th. In an apparatus of the class described, the cleansing fluid tank D with its outlets *m* *n*, the water and compressed air supply pipes E F, in combination with a stationary, main cleansing pipe E, its minor or branch pipes *a*³ *b*³ *c*³ *d*³ *e*³, the draft pipes *a*¹ *b*¹ *c*¹ *d*¹ *e*¹, their beverage receptacles *a*² *b*² *c*² *d*² *e*² and the pipes *a*⁴ *b*⁴ *c*⁴ *d*⁴ *e*⁴ for conveying compressed air to the beverages therein, as set forth.

No. 59,233. Cartridge Belt. (Cartouchière.)



Charles E. Conner, Auburn, Maine, U.S.A., 10th March, 1898; 6 years. (Filed 31st January, 1898.)

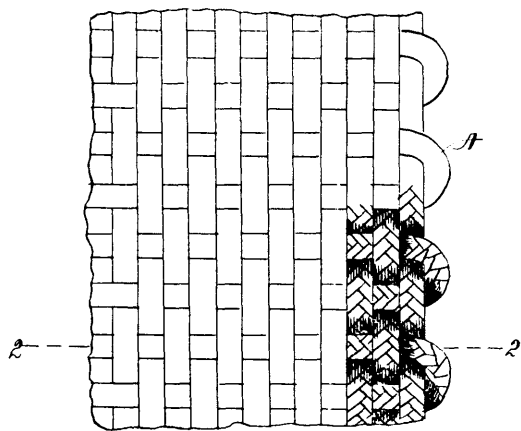
Claim.—1st. The combination with a cartridge belt, of a hinged support for the rim of the cartridge and means of attaching it to the belt, all as and for the purpose set forth. 2nd. In a cartridge belt, the combination with the leather or other material of the belt, of the fixed part of a hinge secured thereto, a holder for the rim of the cartridge which forms the movable part of the hinge and a spring attached to the belt which acts to hold the rim holder fixed in one or more positions, all as set forth. 3rd. The combination of a holder for the rim or cartridge which encircles one half of it and is open on the other side, a supporting-piece to which the rim-holder is hinged, a spring formed from the metal supporting-piece, and a projecting piece on the rim-holder which enters a hollow in the spring when the rim-holder is at right angles to the supporting-piece, all as set forth.

No. 59,234. Belt for Conveyors, Elevators, etc. (Courroie pour transports, éleveurs, etc.)

Thomas Frederick Ennis and Frank Samuel Green, both of Birmingham, Warwick, England, 10th March, 1898; 6 years. (Filed 24th February, 1898.)

Claim.—1st. An improved belt or band for conveyors, elevators, or the like, having an exterior surface of asbestos or other similar refractory material or substance, whereby the band or belt, is not materially affected by heat or corrosive material, substantially as and for the purpose set forth. 2nd. An improved belt or band for conveyors, elevators, or the like, comprising a series of interwoven cords or threads composed of asbestos or other similar refractory material or substance not materially affected by heat or corrosive

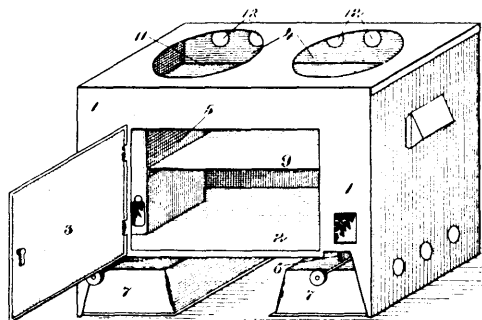
materials, substantially as and for the purpose set forth. 3rd. An improved belt or band for conveyors, elevators, or the like, com-



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prising interwoven cords or threads of asbestos or similiar refractory material or substance, and having a metallic core, substantially as and for the purpose set forth.

No. 59,235. Oil Cooking Stove. (Poêle de cuisine à l'huile.)



59235

William Driver Hutson, Toronto, Ontario, Canada, 10th March, 1898; 6 years. (Filed 22nd February, 1898.)

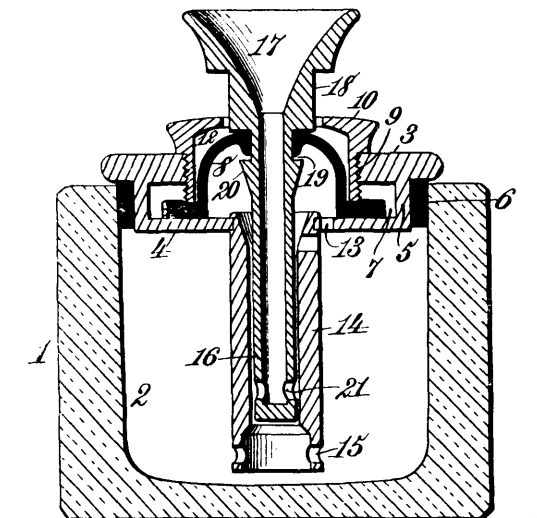
Claim.—1st. In an oil cooking stove, an oven contained within and a part of the same, heated by hot air flues, situated within and hot air chamber above, having the walls of the oven interlined with asbestos, substantially as shown and described. 2nd. In an oil cooking stove, an oven contained within and a part of the same, and interlined with asbestos, in combination with hot air flues, passing through the same and a hot air chamber located above and below said hot air flues are located the oil burners and oil reservoirs, substantially as shown and described. 3rd. In an oil cooking stove, an oven contained within the same in combination with hot air flues having air checks fastened to the lower extremities and independent of the oil burners, substantially as shown and described.

No. 59,236. Inkstand. (Encrier.)

Charles Barnabas Smith, Elizabeth, Pennsylvania, U.S.A., 10th March, 1898; 6 years. (Filed 31st January, 1898.)

Claim.—1st. The combination with an ink-well having a stopper-receiving mouth at its top portion, of a stopper constructed with a diaphragm-containing chamber and fitted air-tight into the mouth of the ink-well, a tube suspended from the chambered stopper, a diaphragm housed within said stopper, and a vertically movable tubular stem engaged with the diaphragm, extending through the stopper into the pendent tube, having a suitable dip-cup at its upper end and provided with a perforated lower end housed within said suspended tube, substantially as described. 2nd. The combination with an inkstand having a stopper receiving mouth at its top portion, of a stopper constructed with a perforated bottom wall and a diaphragm-containing chamber and fitted air-tight into the mouth of the ink-well, a tube suspended from the perforated bottom wall of the chambered stopper, a diaphragm housed within said stopper, and a vertically movable tubular stem engaged with the diaphragm, extending through the stopper into the pendent tube having a suitable dip-cup at its upper end and provided with a perforated lower end housed within the suspended tube, substantially as described. 3rd. The combination with an ink-well, of a stopper fitted to the mouth of the ink-well and constructed with a perforated bottom wall and a diaphragm-contain-

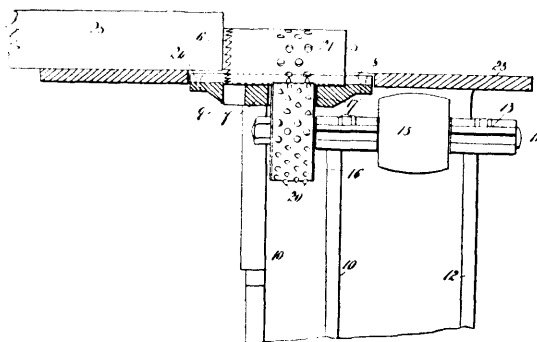
ing chamber, a dome-shaped diaphragm housed within the chamber of said stopper, a plug detachably secured in the stopper and clamp-



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ing the base of the diaphragm against the bottom of said stopper, and a vertically-movable tubular stem detachably engaged with the diaphragm and having a suitable dip-cup at its upper end, substantially as described. 4th. The combination with an ink-well, of a stopper fitted to the mouth of the ink-well and constructed with a perforated bottom wall and a diaphragm-containing chamber, a tube suspended from the perforated bottom wall of the chambered stopper, a diaphragm housed within said stopper, a plug detachably secured in the top wall of the stopper, and a vertically-movable tubular stem extending through said plug into the suspended tube, engaged with the diaphragm, and having a suitable dip cup at its upper end, substantially as described. 5th. The combination with an inkwell, of a stopper fitted to the ink-well and constructed with a diaphragm-containing chamber, and a screw-threaded orifice in its top wall, a diaphragm housed within said stopper, a screw-threaded plug screwed into said orifice and clamping a marginal portion of the diaphragm against the bottom of the stopper, and a vertically-movable tubular stem extending through the plug, engaged with the diaphragm and having a suitable dip-cup at its upper-end, substantially as described.

No. 59,237. Machine for Making Spouting Work, etc. (Machine pour faire des dalles, etc.)

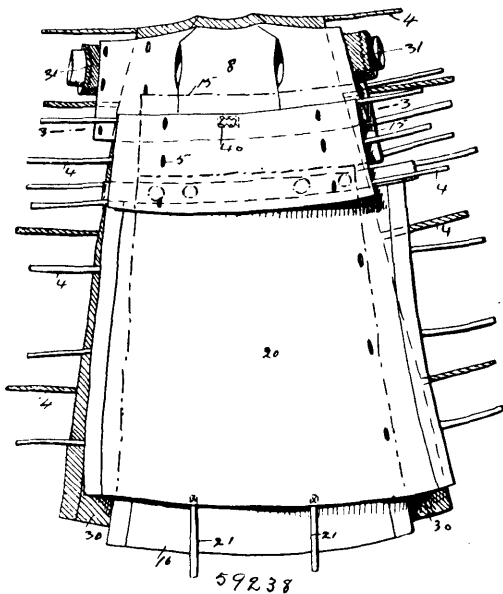


59237

John Anderson, Newcastle-on-Tyne, Northumberland, England, 10th March, 1898; 6 years. (Filed 17th November, 1897.)

Claim.—1st. A machine for the purpose herein described, consisting of a suitable frame or support, a sectional bearing mounted therein, a tubular saw mounted in said bearing, and a shaft mounted below said bearing, and provided with a gear-wheel, on the perimeter of which are projections or teeth which are adapted to enter corresponding holes or openings formed in said saw, substantially as shown and described. 2nd. A machine for the purpose herein described, consisting of a suitable frame or support, a sectional bearing mounted in said frame or support, a tubular saw mounted in said sectional bearing and adapted to turn therein, devices for turning said saw, and a table supported by said frame or support, and provided with an opening in which said bearing fits, substantially as shown and described.

No. 59,238. Child's Suit. (Vêtement d'enfant)

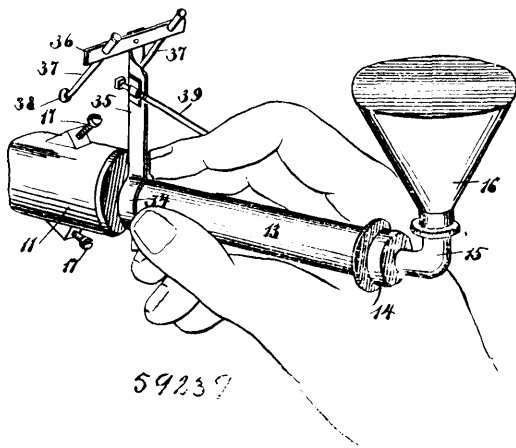


Charlotte Mitchell Nimmo Thomson, wife of Charles Brown Lester, Westmount, Quebec, Canada, 10th March, 1898; 6 years. (Filed 11th December, 1897.)

Claim.—1st. An infant's garment, open down the front, its meeting edges adapted to overlap, and provided with series of tapes 4 and 6 and apertures 5 adjacent to such meeting edges, for the purpose set forth. 2nd. An infant's suit, comprising complete underwear and robe connected together by a binding ribbon attached to the back of the innermost article of the underwear, and taken through registering openings in the back of each of the other articles, and adapted to be tied around the outside of the robe, substantially as shown and described. 3rd. An infant's suit, comprising a series of articles consisting of a binder 2, a shirt 8, a barrow-coat 15, 16, and pinning flannel 20, and an outer robe or dress 30, each article excepting the shirt of the barrow-coat having a series of tapes or ribbons 4 secured to each edge of its opening, a series of ribbons or tapes 6 secured a short distance from said edges, and a series of holes 5 adjacent to said last-mentioned series of tapes or ribbons, and intermediate thereof and the first-mentioned series of tapes, buttons and button-holes for fastening the barrow-coat, and a series of tapes or ribbons, 21 and 22, secured to the lower front thereof respectively, together with a binding ribbon for the whole, substantially as described and for the purpose set forth.

No. 59,239. Sign Writer's Apparatus.

(Appareil à écrire les enseignes.)

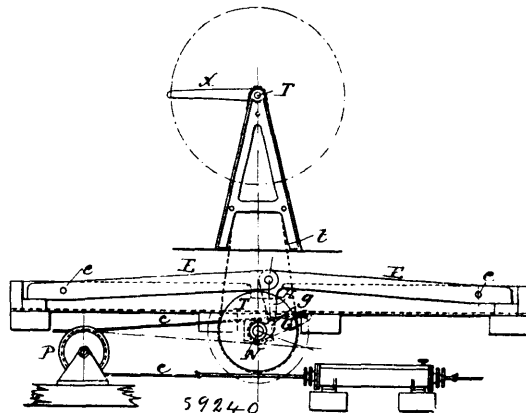


Herman Chester Carver, Red Oak, Iowa, U.S.A., 10th March, 1898; 6 years. (Filed 24th January, 1898.)

Claim.—1st. The combination of a body portion having a flanged mouth, a block capable of closing said mouth, and a point carried by the block and capable of projecting through the mouth and of movement with the block into the body portion, substantially as described.

2nd. The combination of a body portion having a mouth an orificed block capable of removably closing said mouth, and a point movable through the orifice of the block, and independently thereof, substantially as described. 3rd. The combination of a body portion having a mouth, a block capable of closing the mouth, a spring pressing the block, a rod passed through the block, a point carried by the rod and projecting through the mouth of the body portion, a spring pressing the rod, a nut carried by the rod and capable of engagement to move the block with the rod, a screw carried by the body portion and limiting the inward movement of the block, substantially as described. 4th. The combination of a body portion having a mouth, a block capable of closing the mouth, a rod passed into the body portion and block, and a point carried by the rod and projecting through the mouth of the body portion, the block being capable of movement inward to open the mouth of the body portion, substantially as described. 5th. A sign-painter having the body portion provided with liquid-feeding devices, a guide rigid with the body portion and capable of engaging the surface on which the sign is to be painted, and a supplemental arm carried by the guide capable of engaging the hand of the operator and of indicating the degree of pressure applied to the guide, substantially as described. 6th. The combination with a body portion having a flanged mouth, of a centrally-recessed block having projection extending through the mouth, a rod passed into the recess of the block, a point carried by the rod projecting through the block and through the mouth of the body portion, a screw carried by the body portion and engaging the block to limit its inward movement, and means for spring-pressing the rod and block, substantially as described.

No. 59,240. Apparatus for Preventing Collisions on Railways. (Appareil pour empêcher les collisions de chemins de fer.)



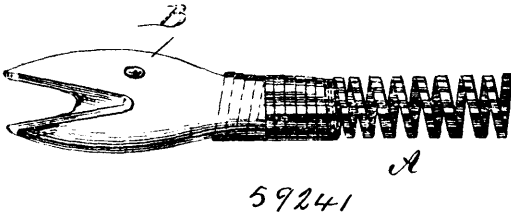
Johannes Vermehren, Hellerup, Denmark, 10th March, 1898; 6 years. (Filed 25th January, 1898.)

Claim.—1st. In an automatic apparatus for preventing collisions of railway trains of the kind herein referred to, an appliance situated at a suitable distance from the stopping place at the side of the track and at such a height above the same that it can engage with an arm extending from the side of the locomotive arriving at that point and thereby actuate the brakes, such appliance being brought into the operative position by means of a mechanism at the stopping place, which is actuated by an entering train, substantially as described and as illustrated in the accompanying drawings. 2nd. In an apparatus such as is referred to in claim 1, the two lever bars E disposed between the rails at the stopping place, which bars are pivoted together and are normally pressed upwards by springs but are pressed down when a train arrives so as to turn the axis N the rotation of which is completed by the weight L connected by the rope c with the arm G mounted on the said axis, the movement of which rope also turns by means of the chain c', a sprocket wheel D mounted on a staging O at a suitable distance from the stopping place so that a plate S fixed on the axis of the said sprocket wheel is turned over into a position in which it can engage the roller R of the guide rod A extending from the side of a following locomotive and is caused to draw outwards this rod which in its turn turns the handle of the vacuum or other brake so as to put this in action and stop the train. 3rd. In combination with an apparatus such as is referred to in the claims 1 and 2 the use of a special steam whistle so arranged in connection with the automatically working brake apparatus as to sound when the brakes are automatically applied but not to sound when the brakes are applied by hand, substantially as described.

No. 59,241. Toy. (Jeu.)

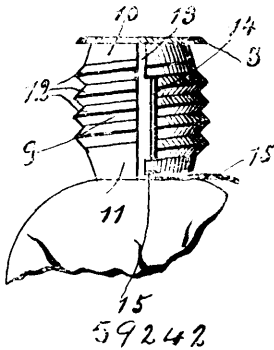
William Frederick Simon, West Hoboken, New Jersey, 10th March, 1898; 6 years. (Filed 27th January, 1898.)

Claim.— A toy or ornament made in the semblance of a reptile, having its body formed of a thin metal strip spirally coiled, said



strip being crimped and presenting thereby a contrast of light and shade, substantially as described.

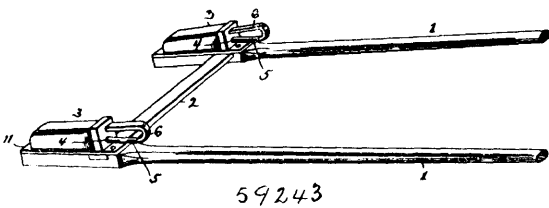
No. 59,242. Bottle Cap. (Capuchon de bouteilles.)



Simeon E. Kinnan, Middleburg, Florida, U.S.A., 10th March, 1898; 6 years. (Filed 25th January, 1898.)

Claim.—1st. The combination with a bottle-neck, of a barrel consisting of a screw-threaded piece of spring material bent around the neck and having separated ends, being also provided with a tongue, and a locking-cap provided with grooves adapted to receive the tongue and which cap screws onto the locking-barrel. 2nd. The combination with a bottle-neck, of a locking-barrel located on said neck, a locking-cap adapted to engage with said barrel, and a cord connected to the barrel and whereby the latter may be held when the cap is being connected thereto. 3rd. The combination with a bottle-neck of a screw-threaded locking-barrel, located on the neck, a flexible, severable connection secured to said locking-barrel whereby the same may be prevented from turning, and a locking-cap adapted to be screwed on the locking-barrel and sever the said connection.

No. 59,243. Trace Fastener. (Attache de traits.)



Thomas S. Ballard, Glenwood Springs, Colorado, U.S.A., 10th March, 1898; 6 years. (Filed 24th February, 1898.)

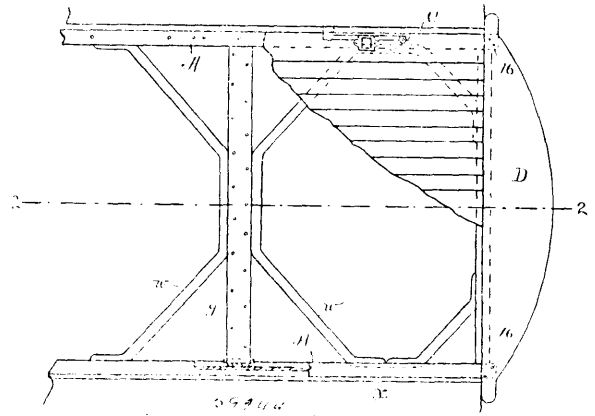
Claim.—1st. A trace-fastener, comprising a casing having a flat-sided longitudinal bore reduced at one end to form a shoulder, a hook having its shank slidably mounted in said casing, a flat-sided nut threaded upon said shank and sliding in the flat-sided portion of the bore, and a spring interposed between said nut and shoulder, substantially as described. 2nd. A trace-fastener, comprising a casing having a longitudinal flat-sided bore reduced at one end to form an internal shoulder, a hook having its shank slidably mounted in said bore, a flat-sided nut fitted upon said shank and adapted to slide in the squared portion of the bore, and a spring surrounding said shank and interposed between said shoulder and nut, the arrangement being such that the hook may be turned so as to extend outside of the casing upon one side thereby enabling the hook to be moved back for withdrawing the nut from the bore, substantially as described.

No. 59,244. Railway Car Truck. (Châssis de chars.)

John Hector Graham, Boston, Massachusetts, U.S.A., 10th March, 1898; 6 years. (Filed 24th February, 1898.)

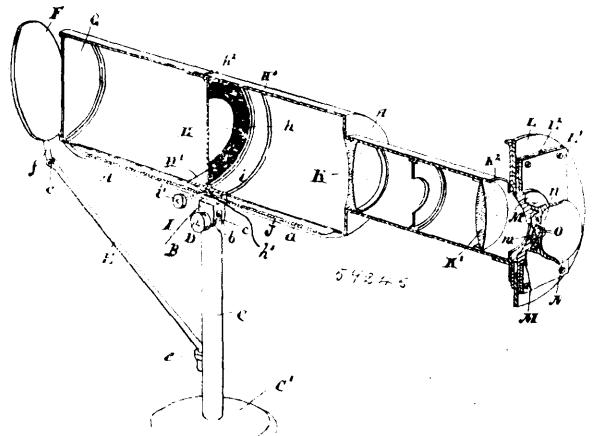
Claim.—1st. A frame for car trucks, end rails and side rails of metallic I-beams, mortised and bolted together. 2nd. A metallic

car truck frame, constructed of I-beams grooved to receive a rabbeted wooden header. 3rd. A car truck frame, comprising metallic



I-beams bolted together, tie-rods connecting the side rails and brace-rods, as *w*. 4th. A car truck frame, comprising I-beam rails, tie-rods, a channel iron connecting the side rails, and supporting wooden girders for the flooring. 5th. In a metallic truck for cars, the side rails of I-beam iron, in combination with the castings *i*, the tie-rods and channel irons. 6th. The combination of the I-beam rails, mortised and grooved, the channel irons, the girders, the subsills, the header, and the flooring. 7th. The I-beam side rails, in combination with the pocket members secured to the web thereof to receive the truss-hanger. 8th. The I-beam side-rails, in combination with the spring pocket members, the hanger *z*, and the truss *r*. 9th. In a car truck, the pedestal formed in two sections attachable to the side rails. 10th. A brake-mechanism, comprising a lever fulcrumed on the axle-box or axle, and supporting the shoe, said lever being pivotally connected to the truck. 11th. The approximately U-shaped lever, fulcrumed on the axles and pivotally connected with the truck body, in combination with devices for supporting the brake-shoes from said lever. 12th. The lever, fulcrumed on the axles and connected with the truck frame, in combination with the hanger supported from said lever, flexible seats for said hangers, the brake-beam carried by the hangers, and the shoes connected to said beam. 13th. The pivoted U-shaped lever, and lateral movable hangers carried thereby. 14th. The lever, fulcrumed on the axles, in combination with the rocking hanger connected to said lever, and the U-spring on said lever having its end adjustably connected to the hanger.

No. 59,245. Optometer. (Optomètre.)

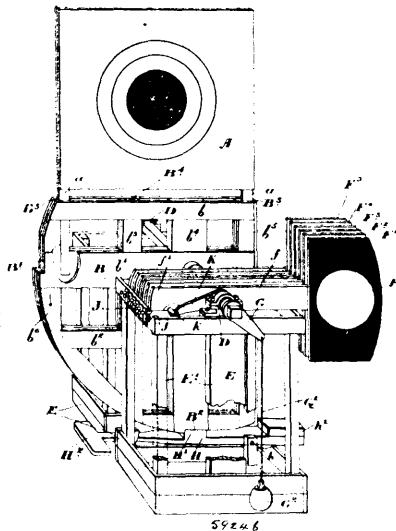


Thomas Barry Jobb, Orillia, Ontario, Canada, 11th March, 1898; 6 years. (Filed 30th December, 1897.)

Claim. 1st. In an optometer, in combination suitably abutting convex or concave lenses, the holder for same provided with suitable eye-holes in which the abutting edges of the lenses are in the central line of sight, the minor cylindrical portion provided next the eye-hole with convex lens and at the opposite end with concave lens, the major cylinder forming an extension thereof and provided with an end opening, as and for the purpose specified. 2nd. In an optometer, in combination, suitably abutting convex or concave lenses, the holder for same provided with suitable eye-holes in which the abutting edges of the lenses are in the central line of sight, the minor cylindrical portion provided next the eye-hole with convex lens and at the opposite end with concave lens, the major cylinder

forming an extension thereof and provided with an end opening and a suitable stand for the major cylinder, as and for the purpose specified. 3rd. In an optometer, in combination, suitably abutting convex or concave lenses, the holder for same provided with suitable eye-holes in which the abutting edges of the lenses are in the central line of a convex lens and at the opposite end with a concave lens, the major cylinder forming an extension thereof and provided with an end opening, a bracket secured in the centre of the major cylindrical portion and provided with depending lugs, a stand provided with a reduced upper end and a clamping screw extending through the lugs and reduced end, as and for the purpose specified. 4th. In an optometer, in combination suitably abutting convex or concave lenses, the holder for same provided with suitable eye-holes in which the abutting edges of the lenses are in the central line of sight, the minor cylindrical portion provided next the eye-hole with a convex lens and at the opposite end with a concave lens, the major cylinder forming an extension thereof and provided with an end opening, a suitable stand for the major cylinder and a mirror and arm supporting the same, as and for the purpose specified. 5th. In an optometer, the combination with the eye-piece and abutting lenses, of the minor cylinder, the convex lens located in same next the eye-piece, the concave lens located at the opposite end, the major cylinder and the focus gauge ring and pointer and scale on the cylinder, all arranged, as and for the purpose specified. 6th. In a machine of the class described, the combination with the major and minor cylinders and lenses arranged as specified, of the focus ring, the slot at the bottom of the cylinder, the lugs extending through the same from the focus ring, the spindle journaled in the lugs, the pinion secured on same and the toothed rack secured to the cylinder, as and for the purpose specified. 7th. In a machine of the class described, the combination with the major and minor cylinders and lenses arranged as specified, of the focus ring, the slot at the bottom of the cylinder, the lugs extending through the same from the focus ring, the spindle journaled in the lugs, the pinion secured on same, the toothed rack secured to the cylinder, the pointer extending from the lugs to the top of the cylinder and the scale extending longitudinally on the top of the cylinder, as and for the purpose specified. 8th. In an optometer, in combination suitably abutting convex or concave lenses, the holder for same provided with a suitable eye-hole in which the abutting edges of the lenses are in the central line of sight and means for rotating the lenses, as and for the purpose specified. 9th. In a machine of the class described, the combination with the cylinder and convex lens arranged next the eye-hole and concave lens arranged towards the opposite end of the cylinder, of the focus ring and means for adjusting such focus ring within the cylinder and a suitable scale used in connection with such adjustment, as and for the purpose specified.

No. 59,246. Target. (Cible.)

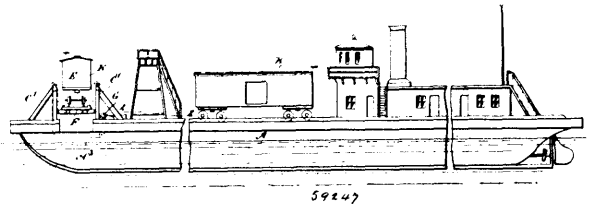


Walter George Fowler, Toronto, Ontario, Canada, 11th March, 1898; 6 years. (Filed 31st December, 1897.)

Claim.—1st. In a military target, in combination the target, the quadrantal frame supported on the main shaft, counter-balancing weights connected to the shaft and means for holding the quadrantal frame and target in the raised and lowered position, as and for the purpose specified. 2nd. In a military target, in combination the target, the quadrantal frame supported on the main shaft, counter-balancing weights connected to the shaft, the reversely cut notches in the side and bottom of the arc-shaped side of the quadrantal frame and the weighted lever suitably pivoted and provided with a

treadle and tooth designed to engage with the notches, as and for the purpose specified. 3rd. The combination with the target, the quadrantal frame supported on the main shaft, counter-balancing weights connected to the shaft, and means for holding the quadrantal frame and target in the raised and lowered position, of the signals and signal levers provided with weighted ends and loosely journaled on the main shaft, and means for holding the levers normally in position, as and for the purpose specified. 4th. The combination with the target, the quadrantal frame supported on the main shaft, counter-balancing weights connected to the shaft, and means for holding the quadrantal frame and target in the raised and lowered position, of the signals and signal levers provided with weighted ends and loosely journaled on the main shaft and the spring-pressed bolts extending underneath the weighted ends of the levers, as and for the purpose specified. 5th. In a target, the signals and signal levers suitably connected thereto and journaled on the main shaft and provided with weighted ends, and means for holding the weighted ends of the signal levers in a horizontal position, as and for the purpose specified. 6th. In combination the target, the quadrantal frame rigidly connected to the shaft, the counter-balancing arms and weights secured to the one side of the shaft, the signals and weighted signal levers, means for holding the signal levers in the horizontal position, and the arms K secured on the shaft and provided with the rod *k* extending through the free ends of the arms, as and for the purpose specified.

No. 59,247. Transfer Boat. (Bateau à transport.)

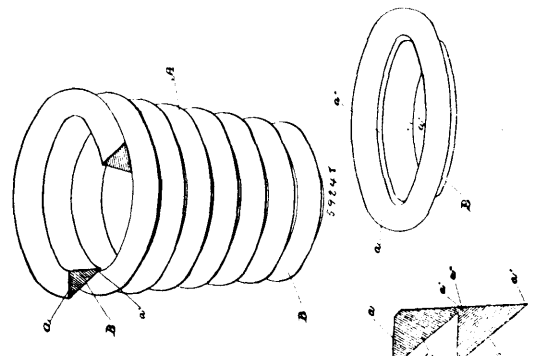


Walter Gilman Berg, New York, State of New York, U.S.A., 11th March, 1898; 6 years. (Filed 7th February, 1898.)

Claim.—1st. The combination of a turn-table, a platform held to turn therewith and vertically movable in relation thereto, and an apron hinged to said platform at the periphery thereof, substantially as described. 2nd. The combination of a turn-table, and a platform held to turn therewith and capable of independent vertical movement without changing its original angular position relatively to a horizontal plane, substantially as described. 3rd. A boat provided with turn-table, a platform held to turn therewith and movable vertically in relation thereto while remaining substantially horizontal, and an apron hinged to said platform and held to turn as well as to raise and fall therewith, substantially as described. 4th. The combination of a turn-table, supports held to turn therewith, a platform suspended from said supports and capable of being moved bodily in a vertical direction, and a hoisting device connected to the platform, substantially as described. 5th. The combination of a turn-table, supports held to turn therewith, a platform suspended from said supports and capable of being moved bodily in a vertical direction, an apron hinged to said platform at the periphery thereof, and a hoisting device connected to the platform, substantially as described. 6th. The combination of a turn-table, supports held to turn therewith, a platform carried by said supports so as to turn with the turn-table, the said platform being also bodily movable in a vertical direction relatively to said support, and a hoisting device connected to the platform, substantially as described.

No. 59,248. Globe or Reflector for Lamps.

(Réflecteur pour lampes.)

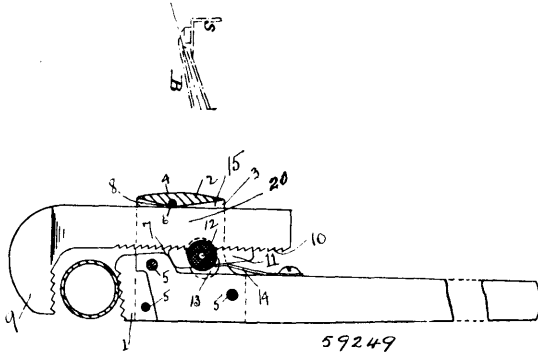


Remy Burger, Toronto, Ontario, Canada, 11th March, 1898; 6 years. (Filed 10th January, 1898.)

Claim.—1st. A globe or reflector consisting of a plurality of independent concentric prismatic rings, assembled in successive order,

substantially as specified. 2nd. A globe or reflector consisting of a plurality of independent concentric prismatic rings, assembled in successive order, with the prismatic edges of the rings on the outer face of the globe, and the plain faces of the rings forming a continuous bore from the top to the bottom of the globe, substantially as specified. 3rd. A globe or reflector consisting of a plurality of independent concentric rings arranged in successive order, with the prismatic edges of the rings on the outer face of the globe, and the plain faces of the rings forming a continuous bore from the top to the bottom of the globe, and one side face of each ring fitted with a concaved seat to receive the edge of the next successive ring substantially as specified.

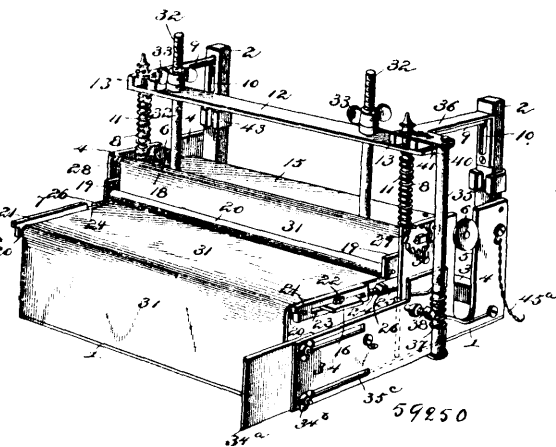
No. 59,249. Pipe Wrench. (Clé à tuyau.)



James H. Pierce, West Bay City, Michigan, U.S.A., 11th March, 1898; 6 years. (Filed 20th December, 1897.)

Claim.—In a pipe wrench, the combination of the stock having on its forward end a stationary jaw, and provided with an upwardly extending shoulder in rear of said stationary jaw, a yoke secured to said stock in rear of said stationary jaw and provided on its inner face with a fulcrum point and a supporting surface in rear of said fulcrum point, a movable jaw passed through said yoke and with its upper side resting against said fulcrum point and with a ratchet portion on its opposite side, with a pawl piece having teeth engaging with said teeth in the movable jaw, and with its forward end against said shoulder on the stationary jaw, and a spring for holding the pawl piece in contact with the movable jaw, substantially as set forth.

No. 59 250. Rolling Gage for Paper-Cutting Machines. (Jauge pour machines à couper le papier.)



Frederick Wilkening, Elkhart, Indiana, U.S.A., 11th March, 1898; 6 years. (Filed 9th February, 1898.)

Claim.—1st. In a gage for paper-cutting machines, comprising a base, a flexible strip attached to the base and extending therefrom, forming a stop for the edges of the paper to abut against, a carriage for determining the height of the stop and movable toward and from the base to adapt itself to the pile of paper to be cut, and means for preserving a tension upon the flexible strip at all positions of the carriage, substantially as set forth. 2nd. A gage comprising a base, a flexible strip secured to the base and having a vertical portion, and a movable carriage having a flexible strip applied thereto, substantially as shown and for the purpose described. 3rd. In a gage, the combination of a flexible strip secured at its ends and normally subjected to tension, and a movable carriage provided with rollers to deflect the flexible strip between its ends and adapted to relieve the friction incident to the relative movement between the flexible strip and the carriage during the

movements of the latter, substantially as and for the purpose set forth. 4th. In a gage, the combination of a flexible strip secured at its ends and normally subjected to tension, a carriage constructed to move vertically and having an approximately horizontal portion, and rollers disposed in different relative planes and at opposite portions of the horizontal part of the carriage, and having the said flexible strip passing beneath one roller and over the other roller, substantially as shown for the purpose set forth. 5th. In a gage, the combination of a flexible strip secured at its ends and normally subjected to tension, a movable carriage and a roller at the front end of the carriage for the flexible strip to pass over and capable of adjustment to properly position the vertical portion of the flexible strip, substantially as set forth for the purpose described. 6th. In a gage, the combination of a flexible strip secured at its ends and normally subjected to tension, a movable carriage, arms adjustably connected with the carriage, and a roller journaled in the arms and having the front portion of the flexible strip passing thereover, substantially in the manner and for the purpose set forth. 7th. In a gage, the combination of a base having vertical portions, a roller journaled in the vertical portions of the base and provided with means to secure it against backward rotation, a flexible strip secured at one end to the base and at its opposite end to the roller, and adapted to have a portion wound upon the said roller, a vertically-movable carriage having an approximately horizontal portion, a roller at the inner end of the horizontal portion and having its lowest element about in the plane of the top side of the said horizontal portion of the carriage, a second roller located at the front end of the horizontal portion of the carriage and having its upper portion about in the plane of the top side of the horizontal part of the carriage, the said flexible strip passing under the inner roller and over the outer roller, and means for returning the carriage to a normal position after being depressed, substantially as described. 8th. In a gage, the combination of guide-rods, springs mounted upon the guide-rods, a movable carriage, a bar directed in its movements by the aforesaid guide-rods and receiving the end thrust of the springs, rods connecting the carriage with the said bar, and adjustable connections for varying the distance between the carriage and the bar with which it is connected, substantially as and for the purpose set forth. 9th. In a gage, the combination of a vertically-movable carriage, a strip having connection with the carriage and constituting an adjustable stop, a post having a cam portion to be engaged by the carriage for effecting a turning thereof, a gage attached to and movable with the said post, and a set-screw for limiting the throw or turning of the post and gage, substantially as described. 10th. In a gage, the combination of a turn-post having a longitudinal guide formed with a cam portion, a side gage having connection with the turn-post, and a carriage-movable vertically and having a portion to engage with the guide of the turn-post to effect a turning of the latter upon the descent of the carriage, substantially as set forth. 11th. A gage attachment for paper-cutting machines, comprising a base having standards and guide-rods, and slide plates formed with vertical slots, clips movable upon the standards and having slotted plates adjustably connected therewith, a vertically-movable carriage having rollers operating in the vertical slots of the side plates, a transverse bar adjustably connected with the carriage and operating upon the guide-rods, springs mounted upon the guide-rods and exerting an upward pressure against the transverse bar, a vertical turn-post having a guide formed with a cam portion and adapted to be engaged by a projecting portion of the said transverse bar to be actuated when lowering the carriage, a side gage having connection with the turn-post, and a flexible strip secured at its ends to the base and a roller connecting the side plates, and normally subjected to tension, and adapted to travel over a horizontal portion of the carriage when the latter moves upward or downward, substantially as and for the purpose set forth.

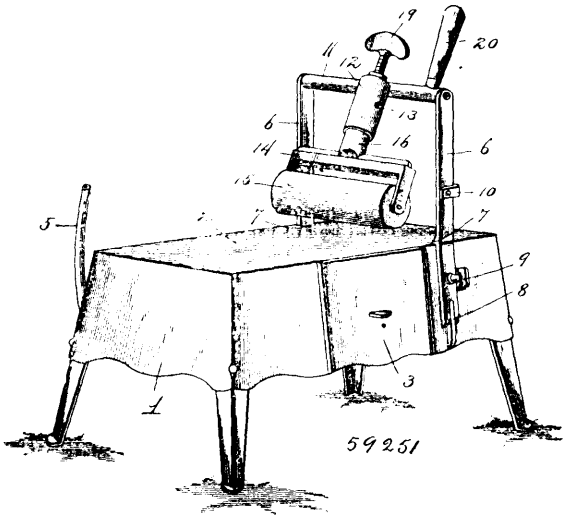
No. 59,251. Milliner's Renovator.

(Rénovateur pour modistes.)

William Henry Thompson, East Stroudsburg, Pennsylvania, U.S.A., 11th March, 1898; 6 years. (Filed 25th January, 1898.)

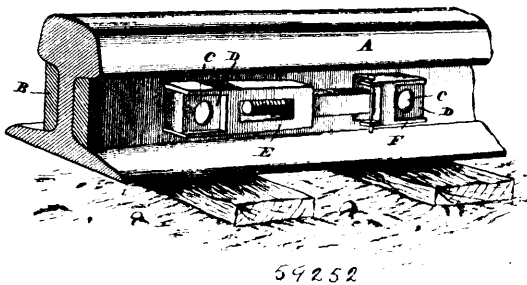
Claim.—1st. A renovator, comprising the table, the standards carried thereby, the fork having a pivotal connection with the standards and adapted to swing into a position approximately parallel therewith, the roller journaled in the fork, and means for limiting the movement of the fork in the direction of the standards, substantially as described. 2nd. A renovator, comprising the table, the standards carried thereby, the rock shaft journaled in the standards, the fork having a yielding connection with the rock shaft, said fork being adapted to swing downward and inward into a position approximately parallel to the standards, the roller journaled in the fork, and means for limiting the movement of the fork, substantially as described. 3rd. A renovator, comprising the table, the standards carried thereby, the rock shaft journaled in said standards, the sleeve carried by the said shaft, the fork having a sliding connection with said sleeve, the spring located within the sleeve and bearing on the fork with means for varying the tension of the spring, and the roller journaled in the fork, substantially as described. 4th. A renovator, comprising the table, the projections on the sides thereof, the standards having inwardly projecting lugs adapted to rest on the table and having forked lower ends adapted to engage the projections, the setscrews passing through the stand-

ards and engaging the sides of the table, and the spring pressed rolling mechanism supported from the standards, substantially as



described. 5th. In a device of the class described, the combination with a table, of uprights rising therefrom, the rock shaft journaled to said uprights, a handle connected to the rock shaft, a sleeve connected to the rock shaft, a member having an arm fitting within said sleeve, a roller journaled in said member, a spring located in the sleeve and pressing against the arm whereby the roller is urged toward the table, a screw for regulating the tension of the spring, means for preventing detachment of the member from the sleeve, and stops connected to the uprights and adapted to limit the backward movement of said member.

No. 59,252. Nut-Lock. (Arrête-écrou.)

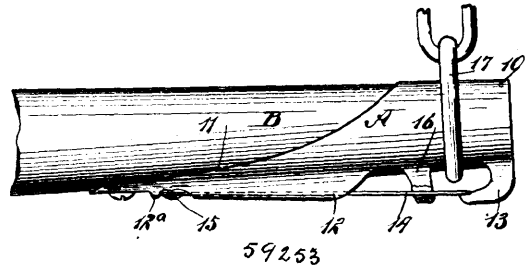


George C. Nickols, Illipolis, Illinois, U.S.A., 11th March, 1898; 6 years. (Filed 19th February, 1898.)

Claim.—1st. A nut-lock, comprising the rail, the fish-plates, the bolts passing through the bolt-holes thereof having the nuts on the screw-threaded ends thereof, a locking-plate, made in sections, one of said sections being provided with a screw-threaded opening, the opposite section having a square bar extending therefrom provided with a screw-threaded stem to enter the opening of the first-mentioned section, said sections being provided at their ends with the lips to embrace the nuts, and a locking-pin, adapted to be passed through one of said sections and down on the side of the square-shaped portion of the bar, so as to prevent any possible turning of the same after being in a locked condition, for the purpose set forth. 2nd. A nut-lock, comprising the rail, the fish-plates, the bolt-holes extending through said rails, said rail and fish-plates adapted to receive a bolt having the threaded front ends for the reception of the nuts, a locking-plate, formed in sections, arranged between said nuts, one of said sections being provided at one of its ends with a threaded opening for the reception of a screw-threaded stem formed integral with the square-shaped bar having the rear end thereof movably secured within the opposite section, and means whereby said sections are held in the desired adjustment after the lips of said sections have been locked against the sides of the nuts, substantially as shown and described. 3rd. A nut-lock, consisting of the rail, the fish-plates, provided with the nuts on the front, threaded ends thereof, in combination with a locking-plate formed in sections, said sections being provided with the lips to embrace the sides of the nuts, one of said sections having a screw-threaded opening to receive a stem formed integral with the opposite section, said stem having a square-shaped rear end adapted to be turned by a wrench, and fastening means so as to bear against the side of the square-shaped portion of the stem to prevent rotation thereof when in a locked position, substantially as and for the purpose set forth.

No. 59,253. Neck Yoke Iron.

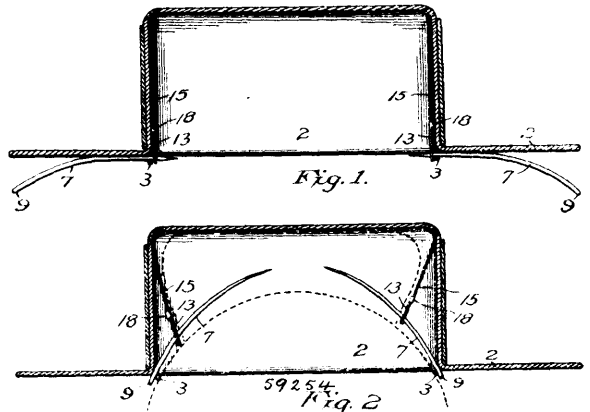
(Ferrement de volée de bout de timon.)



Welcome Craford and Joseph S. Atkinson, both of Bayfield, Wisconsin, U.S.A., 11th March, 1898; 6 years. (Filed 4th February, 1898.)

Claim.—1st. A neck yoke iron, comprising a tubular body, a lip projected from the lower rear portion of the body, the said lip being provided on its under face with a longitudinal flange at each side of its centre, the said flanges terminating at a point near the junction of the lip with the body, a spring located in the space between the said flanges, a bearing for the spring located at the outer end portion of the body, and a stirrup located between the end of the lip flanges and the said bearing and through which the said spring passes, as and for the purpose set forth. 2nd. A neck yoke iron, comprising a tubular body, a lip projected horizontally from the lower end portion of the said body, the said lip being provided with a flange at each side of its centre, increasing in width in direction of their outer ends, a spring located in the space between the said flanges, having its inner end attached to the iron, a stirrup secured to the body, through which the spring passes, and a support located at the under forward portion of the body, with which the spring is normally in engagement, substantially as and for the purpose specified. 3rd. In a neck yoke iron, the combination with a tubular body portion and a lip extending horizontally from the lower rear end of the body, the said lip having a flange at each side of the centre of its bottom surface, which flanges increase in depth in direction of their outer ends, of a spring located in the space between the flanges, having its inner end secured to the iron, a hook shaped and rearwardly extending guard located at the under forward portion of the body of the iron, the free end of the spring normally engaging with the upper face of the horizontal member of the said hook shaped guard, and a stirrup located between the hook shaped guard and the outer end of the lip flanges, through which stirrup the aforesaid spring passes, as and for the purpose specified.

No. 59,254. Hat Fastener. (Attache de chapeaux.)

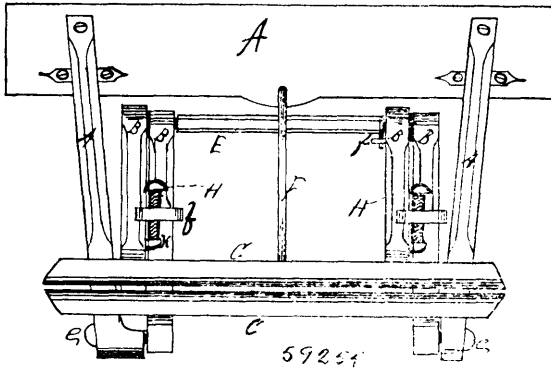


Charles Scott, Minneapolis, Minnesota, U.S.A., 11th March, 1898; 6 years. (Filed 28th February, 1898.)

Claim.—1st. The combination, with a suitable hat, of a guide secured to its under surface at or near the junction of the brim and the crown, a pin passing through said guide and adapted to slide therein, a holder arranged within the hat and engaging the free end of the pin, and through which said pin slides, and means for supporting said holder, for the purpose set forth. 2nd. The combination, with a suitable hat, of a guide secured to its under surface at or near the junction of the brim and the crown, a pin passing through said guide and adapted to slide therein, a holder arranged within the hat and engaging the free end of the pin, and an adjustable support for said holder, for the purpose set forth. 3rd. The combination, with a suitable hat, of a guide secured to its under surface at or near the junction of the brim and the crown, a pin passing through said guide and adapted to slide therein, a holder arranged within the hat and engaging the free end of the pin, and an automatically adjustable support for said holder, for the pur

pose set forth. 4th. The combination, with a suitable hat, of a guide secured to its under surface at or near the junction of the brim and the crown, a pin passing through said guide and adapted to slide therein, a holder arranged within the hat and engaging the free end of the pin, and an elastic support for said holder, for the purpose set forth. 5th. The combination, with a suitable hat, of the guide 3 formed of elastic material secured to the under surface of the hat or near the junction of the brim and the crown and forming a loop, a pin passing through the loop of said guide and adapted to slide therein, a holder arranged within the hat and engaging the free end of the pin, and means for supporting said holder, for the purpose set forth. 6th. The combination, with a suitable hat, of a guide secured to its under surface at or near the junction of the brim and the crown, a pin passing through said guide and adapted to slide therein, said pin being provided with a flattened end, a holder 13 arranged within the hat and provided with elongated openings 17 through which said pin passes, the longer diameter of said openings being arranged substantially at right angles to the flat surfaces of the ends of the pin, and means for supporting said holder, for the purpose set forth. 7th. The combination, with a suitable hat, of guides arranged upon its under surface at or near the junction of the brim and the crown, pins passing through said guides and adapted to slide therein, holders arranged within the hat through which the free ends of the pins pass, plates 25 upon which said holders are supported, and the adjustable wire connecting said plates, for the purpose set forth. 8th. The combination, with a suitable hat, of the plates 25 secured to the inner surface of the sides of the hat, guides arranged at the lower ends of said plates, pins passing through said guides, holders arranged within the hat through which the free ends of the pins pass, said holders being supported upon said plates, and an adjustable connection between the upper ends of said plates, for the purpose set forth. 9th. The combination, with a suitable hat pin 7 having flattened ends and a loop guide 3 through which the legs of said pins pass, a holder 13 provided with openings through which the legs of the pins pass, and a cord connected to said holder, said cord and said guide being adapted for attachment to a hat, for the purpose set forth.

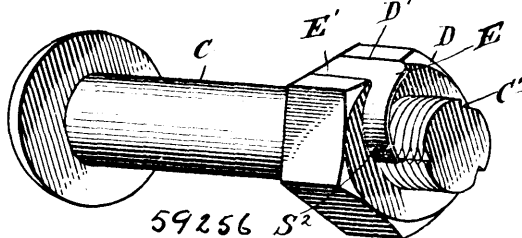
No. 59,255. Saw Vise. (Etau pour scies.)



Lucius Harvey Rand, Stanstead, Quebec, Canada, 11th March, 1898; 6 years. (Filed 26th February, 1898.)

Claim.—The combination of the arms B, B, the cams D, D, the hand-bar E, and the adjusting screws H, substantially as and for the purpose hereinbefore set forth.

No. 59,256. Nut-Lock. (Arrête-écrou.)



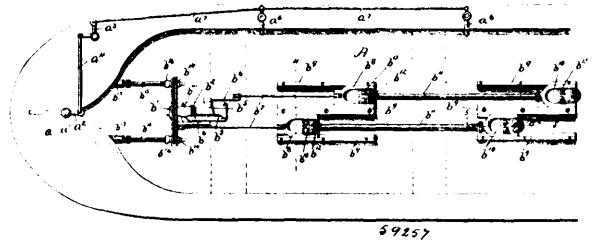
Robert H. Walker, Washington, Iowa, U.S.A., 11th March, 1898; 6 years. (Filed 19th February, 1898.)

Claim.—1st. In a nut-lock, the combination with a bolt having one or more grooves produced therein, of a nut having a recess

upon one side thereof, said recess being adapted to receive the body portion of a spring-locking pawl, substantially as shown and described. 2nd. In a nut-lock, the combination with the bolt having one or more longitudinal grooves produced upon the threaded end thereof, of the nut having a recess upon one side, and the spring-locking pawl having a tongue, said tongue being adapted to engage the groove in the bolt, substantially as shown and described. 3rd. In a nut-lock, the combination with the bolt having one or more longitudinal grooves upon the threaded end thereof, of the nut having a dovetailed recess upon one side, the right-angular shaped spring-locking pawl, comprising a body portion and a locking tongue, said body portion being bevelled and adapted to fit in the dovetailed recess in the nut, the locking tongue fitting tightly against the threaded end of the bolt and engaging the groove in the threaded end of said bolt, substantially as shown and described. 4th. In a nut-lock, the combination with a bolt constructed as described, of a nut, and a locking-pawl attached to one side of the nut and adapted to engage the bolt, said locking-pawl being essentially right-angular in shape, the body portion thereof being connected to the nut, and the tongue portion being curved to partially surround the bolt and engage the groove therein, substantially as shown and described.

No. 59,257. Foot-Power Boat.

(Mécanisme de propulsion pour bateaux.)

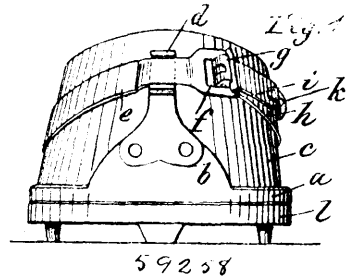


William Webster, Lindsay, Ontario, Canada, 11th March, 1898; 6 years. (Filed 11th January, 1898.)

Claim.—1st. The combination with a boat, of a series of slides, cross-heads slidably mounted therein, gearing mounted in said boat, connections between said gearing and said cross-heads, propeller shafts mounted on opposite sides of said gearing, propellers mounted on said propeller shafts, and connections between said gearing and said propeller shafts, whereby when said cross-heads are operated said propellers will be rotated. 2nd. The combination with a boat, of a series of slides, cross-heads mounted to slide therein, said cross-heads being connected together in series, gearing mounted in said boat in rear of said slides, connections between said gearing and said cross-heads, propeller shafts mounted on opposite sides of said gearing, propellers mounted on said propeller shafts, and connections between said gearing and said propeller shafts.

No. 59,258. Horse Shoe Fastener.

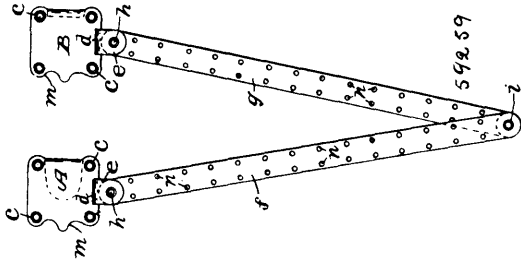
(Attache de fer à cheval.)



Max Schiemangk, Berlin, Germany, 11th March, 1898; 6 years. (Filed 26th February, 1898.)

Claim.—A nailless horse-shoe fastening device, comprising a hoof-plate a with a shoe l fastened thereto, and a device for clamping said hoof-plate to the hoof, consisting of straps e h and means for fastening same.

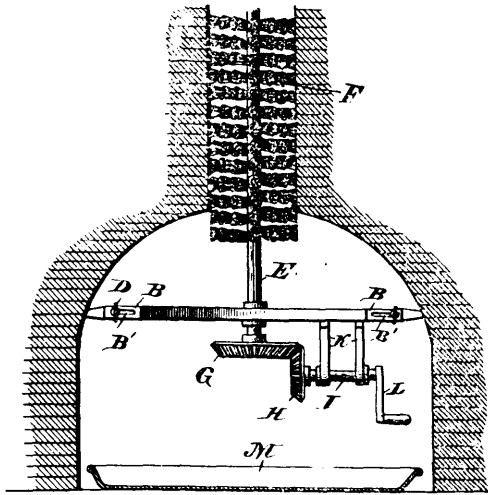
No. 59,259. Placket Fastener. (Fermeture de jupons.)



Isaac N. Weitzel, Rochester, New York, U.S.A., 11th March, 1898; 6 years. (Filed 26th February, 1898.)

Claim.—1st. The combination of the two-part clasp A B, and the pendent strips f g, substantially as and for the purpose herein set forth. 2nd. The combination of the two-part clasp A B, the pendent strips f g, and the pivotal loops e e, substantially as and for the purpose herein set forth.

No. 59,260. Chimney-Sweeping Machine. (Machine pour nettoyer les cheminées.)



59260

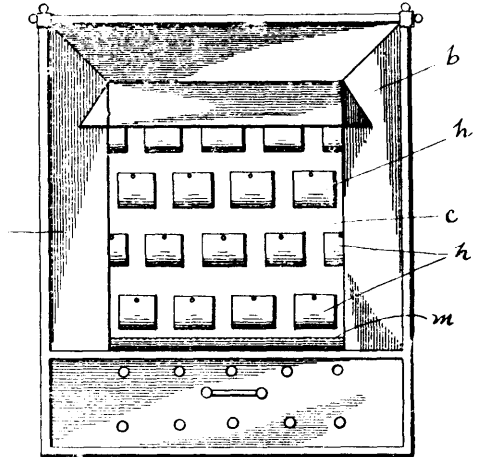
George W. Middleton, Appling, Georgia, U.S.A., 11th March, 1898; 6 years. (Filed 12th February, 1898.)

Claim.—1st. A chimney-sweeper, comprising a rotary brush adapted to be projected up the flue, a bar or frame in which the brush is journaled, said bar or frame being adapted to be mounted or arranged within the fire-place, and provided with means for operating the brush, substantially as shown and described. 2nd. In a chimney-sweeping device, a rotary brush adapted to be projected up the flue, a bar or frame in which the shaft of the brush is journaled, said bar or frame being provided with adjustable feet, whereby it can be fitted in any size of fire place, and the power-transmitting devices carried by the bar or frame for the purpose of rotating the brush, substantially as shown and described. 3rd. In a chimney-sweeping device, the combination with the bar having adjustable feet at each end, of the rotary shaft, journaled in the said bar and provided with a brush at the upper end and a bevelled gear at the lower end, the shaft arranged at right angles to the vertical shaft and provided with a bevelled gear at one end, the crank at the opposite end, substantially as shown and described. 4th. In a chimney-sweeping device, the combination with a bar, of the adjustable metallic feet at the opposite ends, the vertical shaft carrying the brush and bevelled gear, the horizontal shaft carrying the bevelled gear, the crank, and the hanger brackets, all arranged to operate substantially as shown and described. 5th. In a chimney-sweeping device, the combination with the bar having screws at the opposite ends, the metallic feet having longitudinal slots, and the winged nuts for securely holding the feet upon the ends of the bar, of the vertical shaft journaled centrally of the bar and having a brush at the upper end and carrying a bevelled gear at the lower end, the depending hanger brackets, the rotary shaft journaled therein, carrying the bevelled gear at the inner end and the crank at the outer end, substantially as shown and described.

No. 59,261. Gas Stove. (Poêle à huile.)

Patrick Joseph Cassidy, Columbus, Ohio, U.S.A., 11th March, 1898; 6 years. (Filed 21st February, 1898.)

Claim.—1st. In a gas stove, the combination with a casing, of a burner plate, the front of which is provided with a series of out-

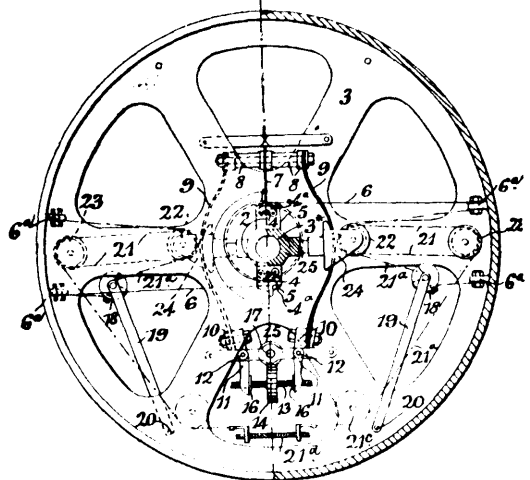


59261

wardly and downwardly projecting tongues, substantially as and for the purpose specified. 2nd. In a gas stove, the combination with a casing, of a burner plate, the front of which is provided with a series of outwardly and downwardly extending projections, said projections having a staggered arrangement, substantially as and for the purpose specified.

No. 59,262. Engine Governor. (Gouverneur de machine à vapeur.)

(Gouverneur de machine à vapeur.)



59262

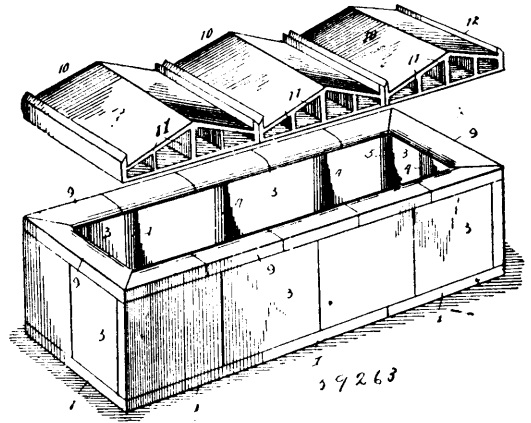
Arthur Samuel Francis Robinson, Wantage, Berks, England, 12th March, 1898; 6 years. (Filed 1st March, 1898.)

Claim.—1st. In an engine governor, the combination with a rotary carrier, for adjusting the position of a shifting eccentric carried thereby, and a weight acting by rotation of the carrier to operate said adjusting means of a cord and pulley arrangement connecting said weight and adjusting means. 2nd. In an engine governor, the combination with a rotary carrier, and a loaded eccentric supporting device mounted thereon and having a constant tendency to move in one direction, of a cord and pulley arrangement connected to said eccentric supporting device, and a weight mounted on said rotary carrier and acting when the same is rotated to move said eccentric supporting device in the opposite direction through said cord and pulley arrangement. 3rd. In an engine governor, the combination or a rotary carrier, a supporting device carried thereby, an eccentric carried by said supporting device, a spring device acting to move said supporting device and eccentric in one direction, and a cord and pulley device and centrifugal weight acting, upon rotation of said carrier, to move said supporting device and eccentric in the opposite direction. 4th. An engine governor comprising a rotary carrier, one or more spring blades connected at one end to said carrier and at the other end to an eccentric supporting device movably mounted on said carrier, a cord and pulley arrangement adapted to pull on said spring blade, or each of them, and one or more centrifugal weights mounted on said carrier and adapted to

act on said spring blade or blades through said cord and pulley arrangement, substantially as described. 5th. In an engine governor, the combination with eccentric adjusting mechanism operating under the action of one or more weights, of a locking device comprising one or more cords connecting the weight or weights to the remaining portion of the adjusting mechanism, and pulleys two or more of which is or are carried by the adjusting mechanism and one or more by the governor drum and round which said cord or cords passes or pass, substantially as described. 6th. An engine governor comprising a rotary carrier, spring blades connected at one end to said carrier and at the other end to an eccentric supporting device movably mounted on said carrier, a cord and pulley arrangement comprising a single or practically single cord and sets of pulleys some of which are mounted on each spring blade and others on the drum and around which said cord passes, and one or more weights arranged to act under the influence of centrifugal force on said cord, substantially as described. 7th. In an engine governor, the combination with a rotary carrier, and a loaded eccentric supporting device mounted thereon and having a constant tendency to move in one direction of a cord and pulley arrangement connected to said eccentric supporting device, one or more weights mounted on said rotary carrier and acting when the same is rotated to move said eccentric supporting device in the opposite direction through said cord and pulley arrangement, and means for varying the freedom of movement of said weight or weights under the action of centrifugal force whereby a greater range of speeding can be obtained, as set forth. 8th. An engine governor comprising a rotary carrier, spring blades having one end fixed to said carrier and the other end to an eccentric supporting device movably mounted on said carrier, a cord and pulley arrangement adapted to pull on said spring blades, centrifugal weights each carried by a rod or pair of rods or spring arms mounted to turn on said carrier, and speed adjusting mechanism adapted to vary the stiffness or resistance of said spring blades, substantially as described. 9th. An engine governor comprising a rotary carrier, spring blades having one end fixed to said carrier and the other end to an eccentric supporting device movably mounted on said carrier, a cord and pulley arrangement adapted to pull on said spring blades, centrifugal weights each carried by a rod or pair of rods or spring arms mounted to turn on said carrier, and speed adjusting mechanism adapted to vary the stiffness or resistance of said spring blades, and also the freedom of movement of the rods or spring arms carrying the weights, substantially as described. 10th. An engine governor comprising a rotary carrier, an eccentric supporting device, movably mounted on said carrier, a pair of spring blades connected at one end to said carrier and at the other end to said eccentric supporting device, a cord and pulley arrangement adapted to pull on said spring blades, centrifugal weights mounted on said carrier and adapted to act on said spring blades through said cord and pulley arrangement, spring blades connected to said eccentric supporting device and said carrier and adapted to act as a parallel motion, and a spring blade connecting the carrier to those ends of the spring blades that are connected to said eccentric supporting device whereby said spring blade ends are constrained to move in practically straight lines, as set forth. 11th. An engine governor comprising a rotary carrier, an eccentric supporting device movably mounted on said carrier, a pair of spring blades connected at one end to said carrier and at the other end to said eccentric supporting device, a cord and pulley arrangement adapted to pull on said spring blades, centrifugal weights mounted on said carrier and adapted to act on said spring blades through said cord and pulley arrangement, and a closing weight connected to the governor mechanism and carried by a spring actuated rod or pair of rods and which when the governor weights tend to move inward is caused to move outward and hasten the inward or closing movement of the said governor weights, as set forth. 12th. In an engine governor, the combination with a rotating carrier, eccentric adjusting mechanism, and speed regulating mechanism having an operating spindle extending through one side of the governor drum, of speed adjusting mechanism comprising two toothed-wheels geared together and one of which is fixed to the projecting end of said spindle and the other is pivoted to said drum, two chain wheels fixed to the respective toothed wheels, two toothed wheels mounted to independently rotate upon the governor shaft, and each provided with a brake pulley, endless chains connecting the separate pairs of chain wheels, and brake devices for separately controlling each brake pulley, substantially as described. 13th. An engine governor, comprising a rotary carrier, a shifting eccentric, loaded spring blades connected at one end to said eccentric, adjustable supports mounted on said carrier and to which the other ends of said spring blades are connected, means for moving said supports to and from each other, a worm and spindle for operating said means, and speed adjusting mechanism, comprising two toothed wheels geared together and one of which is fixed to the projecting end of said spindle and the other is pivoted to said drum, two chain wheels fixed to the respective toothed wheels, two toothed wheels mounted to independently rotate upon the governor shaft, and each provided with a brake pulley, endless chains connecting the separate pairs of chain wheels, and brake devices for separately controlling each brake pulley, substantially as described. 14th. An engine governor, comprising a rotary carrier, a shifting eccentric, a pair of spring blades connected together at one end to said eccentric, and arranged to extend past and on opposite sides of the axis of said carrier and connected at their opposite ends to said carrier, pulleys mounted on said spring blades

and on said carrier, one or more cords passing around said pulleys, and centrifugal weights carried by rods or bars mounted on said carrier so that they can oscillate thereon and arranged to act on said cords, substantially as herein described.

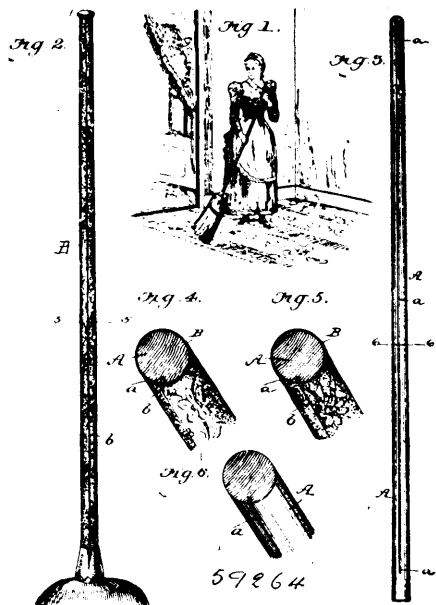
No. 59,263. Vault. (Caveau.)



Frank Kaufman, Rosedale, Ohio, U.S.A., 12th March, 1898; 6 years. (Filed 4th February, 1898.)

Claim.—1st. A slab for use in the construction of burial vaults or like structures, having vertical or outwardly extending flanges at its ends, which flanges are bevelled outwardly at their extreme edges to form a trough when similar slabs are placed end to end, substantially as set forth. 2nd. In a vault or like structure, a top composed of a series of hollow slabs having their upper surfaces oppositely inclining from an intermediate point, and having vertical flanges at their ends which are bevelled outwardly at their extreme edges so as to form a trough when the slabs are together, substantially as shown and for the purpose described. 3rd. In a vault or like structure, a top formed of hollow slabs having vertical flanges at their ends bevelled outwardly to form troughs, and a cap cemented over the upper edges of the flanges, substantially as and for the purpose set forth. 4th. In a vault, the combination of a series of body slabs grooved or channeled in their upper edges, a tie-bar cemented in the groove or channel, and a cap for securing a finished appearance to the top edge of the vault composed of sections which are arranged to break joint with the body-slabs, and having a pendant tongue to enter and be cemented in the aforesaid groove or channel, substantially as set forth.

No. 59,264. Broom Handle. (Manche de balai.)

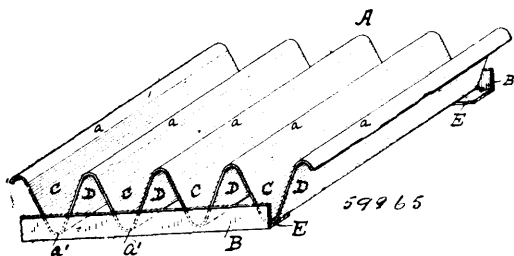


David Smith Perry, Urbana, Ohio, U.S.A., 12th March, 1898; 6 years. (Filed 1st March, 1898.)

Claim.—As an improved article of manufacture, the improved broom-handle composed of the wooden stock or handle proper, hav-

ing a lengthwise groove, and the fibrous covering which is closely attached throughout the length of the stick by an adhesive substance, and whose side edges are embedded and held in the groove as shown and described.

No. 59,265. Provision Rack. (Râtelier à provisions.)

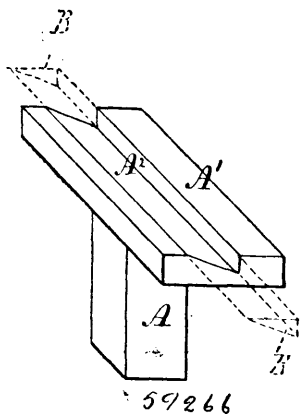


Thomas Carpenter Loudon, Riverside, California, U.S.A., 12th March, 1898; 6 years. (Filed 1st March, 1898.)

Claim.—1st. A rack of the character described, comprising a bed having raised portions and depressed portions, and edge strips which extend part way from the bottom of the depressed portions to the top of the raised portions so as to close the ends of the depressed portions and form troughs C, leaving the raised portions open at the ends to form air passages D. 2nd. A rack of the character described, comprising a bed having raised portions and depressed portions, and an angle piece at each edge of the bed, consisting of an edge strip which closes the ends of the depressed portions forming troughs and leaving the raised portions open for air passages and a bottom strip which strengthens the rack and provides a firm support for the end to rest upon.

No. 59,266. Calk-swaging Die. (Dé pour étamper les crampons.)

(Dé pour étamper les crampons.)



Charles Brouillette, Waterloo, Quebec, Canada, 12th March, 1898; 6 years. (Filed 1st March, 1898.)

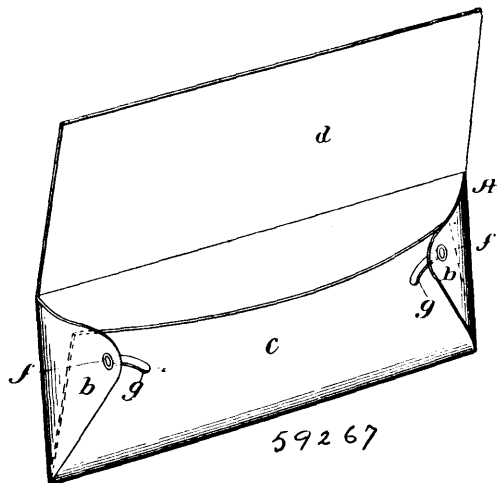
Claim.—A T-shaped calk-swaging die, having a rectangular tang or shank A, vertically and adapted to fit into the whole in a blacksmiths anvil, and a horizontal flat face A¹, having one or more parallel V-shaped swaging grooves A², as set forth, and for the purpose described.

No. 59,267. Envelope. (Enveloppe.)

William Dexter Bradstreet, Waltham, Massachusetts, U.S.A., 12th March, 1898; 6 years. (Filed 7th February, 1898.)

Claim.—1st. In an envelope, the combination with the lower flap or back, of an end flap secured to the lower flap by a sliding fastening device, whereby the envelope is made expansible to vary its capacity, said fastening device being provided with a stop to limit the expansibility of the envelope, substantially as described. 2nd. A self-adjusting expansible envelope having an end flap adjustably

secured to the lower flap or back by means of a rivet or projection on the one part and a slot or track on the other part, whereby the



two connected parts are permitted to slide the one upon the other to vary the capacity of the envelope, substantially as described.

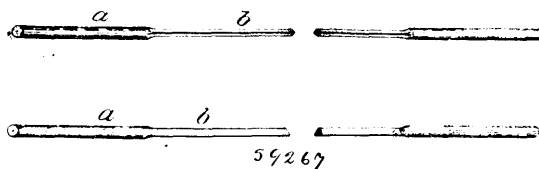
No. 59,268. Tooth Pick. (Cure-dents.)



George B. Deardorff, Canal Dover, Ohio, U.S.A., 12th March, 1898; 6 years. (Filed 24th February, 1898.)

Claim.—As an improved article of manufacture, the combination of the handle A, provided with a brush upon one end thereof, the recess b, having detachably connected therein the tip c, the lateral opening d, leading into the recess b, and the cap or cover B, provided with the rubbing head C, substantially as and for the purpose specified.

No. 59,269. Metal Spoke. (Rais métalliques.)



William George Allen, Hartford, Connecticut, U.S.A., 12th March, 1898; 6 years. (Filed 24th January, 1898.)

Claim.—1st. A metal spoke, having end portions of circular cross-section and an intermediate portion of angular cross-section, and twisted so that the edges form parallel helices, substantially as described. 2nd. A metal wheel-spoke, having end portions of relatively large diameter and a reduced middle portion of polygonal cross-section twisted so that its angles form parallel helices, substantially as described. 3rd. A metal spoke, having end portions of circular cross-section and a reduced twisted middle portion of polygonal cross-section, substantially as described. 4th. A metal spoke, having end portions of circular cross-section of relatively soft metal and a harder middle portion of polygonal cross-section, the middle portion being twisted, substantially as described. 5th. A metal spoke, having end portions of circular cross-section and a reduced middle portion of polygonal cross-section, the edges forming parallel helices extending over part of said middle portion, substantially as described.

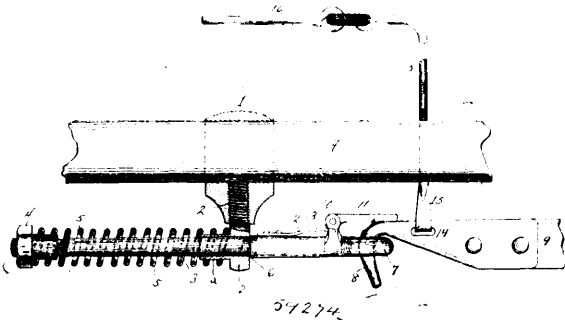
No. 59,270. Camp Stove. (Poêle de camp.)

Frank B. Charroin, Fairhaven, Washington, U.S.A., 12th March, 1898; 6 years. (Filed 7th December, 1897.)

Claim.—1st. A camp stove, formed of two telescopic sections, one of which is provided with a fuel or fire-door and the other with a smoke outlet, and a longitudinally extending oven spaced from the interior of the oven section to allow the products of combustion to pass around it and permit telescoping of the sections, substantially as described. 2nd. A horizontal body stove, formed in two cylin-

necting said hammer with said abstract, of a lower rail pivoted in the action frame, a lever pivoted to said rail and to the abstract, a fixed contact point on the key contacting with said lever, and a lifting dowel operated by the soft pedal and pivoted to the free end of an arm fixed to the lower rail, whereby the upward movement of said dowel will shift said lower rail and the lever pivoted thereto to the rear, and thus shift the point of contact between said lever and the key contact point, substantially as set forth.

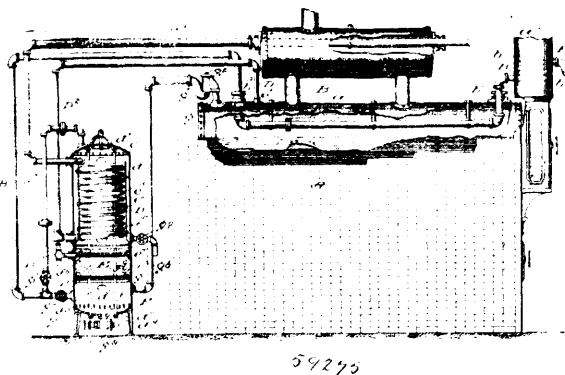
No. 59,274. Vehicle Draft Device.
(*Régulateur du tirage.*)



Thomas S. Bailey, Sandy Lake, Pennsylvania, U.S.A., 12th March, 1898; 6 years. (Filed 28th February, 1898.)

Claim.—1st. The combination with a draft-rod, and a tug detachably connected thereto, of a cord or strap for effecting a release of the tug from the draft-rod, substantially as set forth. 2nd. The combination with a draft-rod having an eye, of a tug-hook adapted to engage said eye, and a spring-actuated tongue or latch constructed and adapted to bear on said hook and prevent its accidental escape from the eye, substantially as set forth. 3rd. The combination with a draft-rod having an eye, of a tug-hook adapted to engage said eye, ears on the draft-rod, a tongue or latch pivoted between said ears and adapted to bear on said hook to prevent its escape from the eye, and a spring secured to the draft-rod and adapted to bear against said tongue or latch, whereby to press the latter on the hook, substantially as set forth. 4th. The combination with a draft-rod having an eye, of a tug-hook adapted to engage said eye, and a strap or cord attached to said tug-hook and adapted to be operated by a driver, whereby to release the tug-hook from the draft-rod, substantially as set forth. 5th. The combination with a draft-rod having an eye, of a tug-hook adapted to engage said eye, a yielding tongue or latch bearing on said hook, and flexible devices connected with the tug-hook and adapted to be operated by a driver whereby to detach the tug-hook from the draft rod and release the horse, substantially as set forth.

No. 59,275. Feed Water Heater and Purifier.
(*Rechauffeur et épurateur d'eau d'alimentation.*)

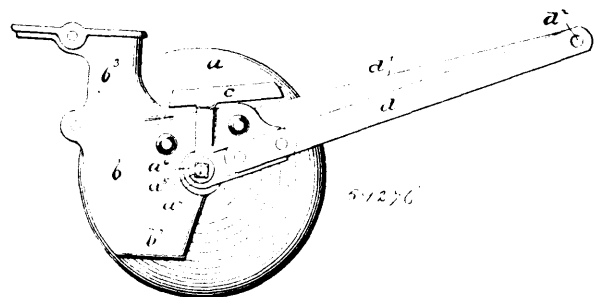


Thomas Gunning, Pittsburg, Pennsylvania, U.S.A., 12th March, 1898; 6 years. (Filed 1st March, 1898.)

Claim.—1st. The combination with a boiler-shell, of a single continuous feed-water pipe extended longitudinally through the steam-space thereof for heating the feed-water to boiler temperature and precipitating scale-forming particles, a filter with which said pipe connects, a pipe leading from said filter to the steam-space of said boiler-shell, and a steam pipe within said filter leading from and returning to the steam space of said boiler-shell, substantially as set forth. 2nd. The combination with a furnace having a stack, and a boiler-shell, of a single continuous feed-water pipe coiled in said stack and extended longitudinally through the steam-space of said boiler-shell for heating the feed-water to boiler temperature and precipitating scale-forming particles, a filter with which said pipe connects, a pipe leading from said filter to the steam-space of said

boiler-shell, and a steam-pipe within said filter leading from and returning to the steam-space of said boiler-shell, substantially as set forth. 3rd. In a feed-water heater and purifier, a casing having upper and lower end-heads and an inner header provided with a perforated plate, a filtering-bed resting on said header, a perforated spray-pipe extended transversely into said casing through said filtering-bed, a valved water-pipe opening into the upper and lower ends of said casing, outlet pipes, a steam-pipe within said casing above said filtering-bed and securing rods pivoted to said upper-end-head and projected through said lower-end-head, substantially as set forth. 4th. The filter herein described, comprising the casing, upper and lower heads, rods connecting the latter, a coil of steam-pipe located within said casing, uprights having cross-rods supporting said coil, an angle-iron on which said uprights rest, a header having a perforated plate, screens on the latter, and a series of valved outlet pipes, hand-holes being formed in said casing, substantially as set forth. 5th. The combination with a boiler-shell, of a single continuous feed-water pipe extended longitudinally through the steam-space thereof, a casing into which said pipe opens, a steam-pipe leading from and returning to the steam-space of said boiler-shell and coiled within said casing, the other end of said steam-pipe opening into the steam-space of said boiler-shell, a filtering-bed within said casing, a pipe leading from said casing and opening into the steam-space of said boiler-shell, and a check-valve in said pipe adjacent to the boiler-shell, substantially as set forth.

No. 59,276. Disc Furrow Opener.
(*Disque à ouvrir les rigoles.*)

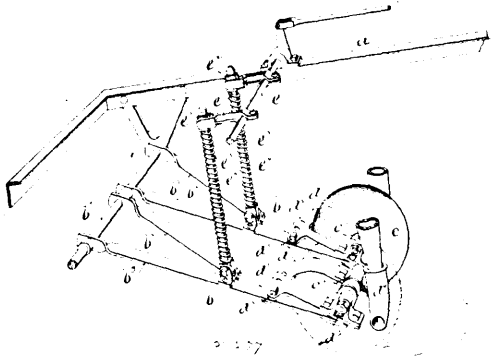


The Superior Drill Company, assignee of Frank R. Packham, both of Springfield, Ohio, U.S.A., 12th March, 1898; 6 years. (Filed 15th February, 1898.)

Claim.—1st. A concave disc, as described, having a central opening, and a cup-shaped bearing support secured about said opening, said bearing support having a trunnion or journal which extends through said central opening, in combination with a bearing support having a bearing to fit said trunnion and also adapted to extend through the opening in said disc and in the opposite direction, substantially as and for the purpose specified. 2nd. A concave disc having a central opening, and a cup-shaped bearing support connected to said disc on the concave side with a trunnion extending through said opening, a bearing support having a projecting bearing to fit over said trunnion and adapted to extend through the opening in said disc into said cup-shaped support, and means for connecting said disc through said trunnion to said bearing support, substantially as specified. 3rd. The combination with a concave disc and its bearing support, of drag-bars connected to said support upon opposite sides thereof but on the same side of said disc, said drag-bars being connected at different vertical angles to said support and projecting at different lateral angles to a common line of attachment, substantially as specified. 4th. The combination with a furrow opening disc and its support, of the drag-bars connected to said support, one of said drag-bars being extended forwardly and upwardly in a line behind said disc, and the other drag-bar being extended forwardly and laterally as well as upwardly at different vertical as well as lateral angle to the other bar, both of said bars having a common line of attachment, substantially as specified. 5th. The combination with the concave disc, the cup-shaped bearing support, the conical trunnion on said bearing support extending through said disc, the projecting bearing on the disc support extending into said cup-shaped bearing support, a lubricating channel extending from the top of said support, thence laterally through said bearing into the cup-shaped bearing support, substantially as specified. 6th. The combination with the disc and disc support, of the lubricating channel formed in said disc support, and a cover or shield having a sten adapted to fit in said channel so as to form a cover for said channel and a support for said shield, substantially as specified. 7th. The combination with the concave disc and its drag-bars, of a pivoted scraper pivoted to one of said drag-bars and formed of resilient material, the angle of said scraper and drag-bar being such that the scraper may be placed either behind or in front of said disc, substantially as specified. 8th. The combination with the concave disc and the support therefor, of the conduit in said disc support, said conduit being formed with one side open on a line substantially coincident with the side of said disc which is adapted to fit the same, substantially as specified.

No. 59,277. Furrow Opener.

(Appareil à ouvrir les rigoles.)

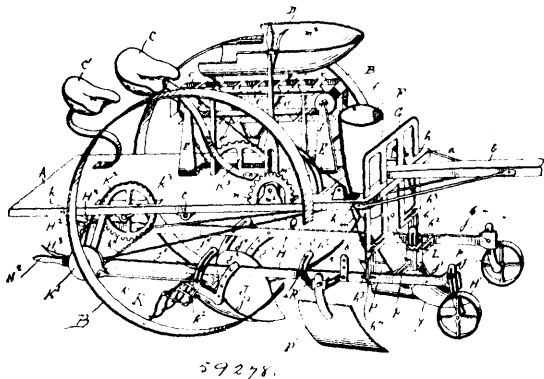


The Superior Drill Company, assignee of Frank R. Packham, both of Springfield, Ohio, U.S.A., 12th March, 1898; 6 years. (Filed 15th February, 1898.)

Claim.—1st. In a furrow opening device, a drag-bar, a frame or support connected to said drag-bar, a concavo-convex disc supported by said frame or support to which it is journaled, and a pivotal connection between said frame or support and said drag-bar, said pivotal connection being arranged in line with the axis of said journaled disc, and means, substantially as described, for holding said frame or support in different positions of adjustment about the pivotal connection so as to change the angle of said disc, substantially as specified. 2nd. The combination with a drag-bar, of a pivoted frame or support, a disk journaled thereon, and a conduit mounted on said frame or support adjacent to said disc and in the rear of the axis thereof, and means, substantially as described, for adjusting the angle of said frame or support with reference to said drag-bar, substantially as and for the purpose specified. 3rd. The combination with a supporting frame, a series of drag-bars pivotally mounted thereon, an adjustable frame or support pivotally mounted on the free ends of said drag-bars, a conduit and disc supported on said frame, means for adjusting said frame with reference to said drag-bars, and a lifting and pressure device arranged between the pivoted end of said drag-bars and said furrow opening discs, substantially as specified. 4th. In combination with the drag-bar, a frame pivotally mounted thereon, a furrow opening disc provided on said frame, and a conduit adjustably supported on said frame so as to be adjusted with reference to said disk, said frame being pivoted to said drag-bar and provided with means for holding said frame in different positions of adjustment, substantially as and for the purpose specified. 5th. The combination with a drag-bar, a frame or support connected thereto, a journaled disc supported by said frame or support, and a conduit also supported by said frame or support and arranged adjacent to said disc in the rear of the axis thereof, a pivotal connection between said frame or support and said drag-bar, and means for holding said frame in different positions of adjustment with reference to said drag-bar so as to change the angle of said disc, the pivotal connection between said drag-bar and said frame or support being arranged in a plane passing through the axis of said disc, substantially as specified.

No. 59,278. Potato Planter and Digger.

(Semoir et cultivateur à patates.)

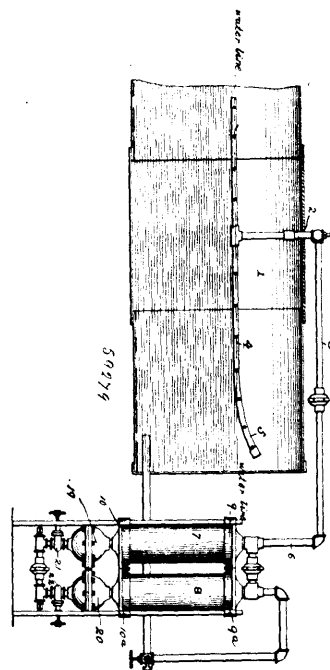


Frederick D. Bell and Frank J. Nelson, both of Hornellsville, New York, U.S.A., 12th March, 1898; 6 years. (Filed 16th February, 1898.)

Claim.—1st. In a potato machine, an opener, a dropper, means for feeding the potatoes within said dropper, laterally and verti-

cally adjustable plates or wings for covering the potatoes, horizontal bars carrying said opener and wings, and adjustable wheels at the forward side of said bars, substantially as set forth. 2nd. In a potato dropper, an adjustable opener, a dropper, a receiver, means for conveying the potatoes from the receiver to the dropper, wings for covering the potatoes, horizontal bars for carrying said opener and wings, and means for adjusting the rear ends of said horizontal bars, substantially as described. 3rd. In a potato machine, the combination with the horizontal adjustable bars carrying the former or opener and covering wings, of a frame at the front of said machine supporting said horizontal bars, means for adjusting and locking said frame, and means for adjusting the covering wings both laterally and vertically. 4th. The combination with a supporting part, of a pivoted digger and digger-adjusting mechanism, a separator pivoted to the digger at its rear edge, a connecting link having a crank-arm, mechanism for vibrating the separator by means of the crank-arm, and a plurality of fingers pivoted to the rear extremity of the separator. 5th. The combination with a pair of supporting bars, of vertically and laterally adjustable wings depending therefrom, a pivoted digger carried by the bars behind the wings, a separator pivoted to the rear edge of the digger, a connecting link having a crank-arm, and mechanism connected with the crank-arm for continuously vibrating the separator while the machine is in motion. 6th. In a digging attachment for potato machines, a digger upwardly inclined from its forward edge, and provided with rearwardly projecting and downwardly inclined fingers carried by the digger. 7th. In a digging attachment for potato machines, the combination with laterally adjustable plates, of a digger secured to the machine at points behind and in line with each of said plates. 8th. In a digger attachment for potato machines, the combination with a pair of horizontal bars, of adjustable plates or wings secured thereto, and a digger adjustably secured to each of the bars respectively, behind the plates. 9th. In a digger attachment for potato machines, the combination with horizontal bars, of adjustable plates or wings secured thereto, a digger directly attached to each of said bars, and mechanism for simultaneously adjusting the bars. 10th. In a digging attachment, the combination with laterally adjustable soil-removing plates, a digger behind said plates, fingers secured to the digger, pivoted fingers carried by said first-named fingers, and means for adjusting the digger. 11th. In a convertible potato planting and digging machine, a main frame carrying a supplemental frame, adjustable soil-throwing plates on the sides of said supplemental frame, an opener on said supplemental frame in front of and on a median line between said soil-throwing plates, the said supplemental frame being adapted to carry a digger at the rear of said plates, the opener and digger being adjustable into and out of operative position at will, substantially as described.

No. 59,279. Boiler Cleaner. (Nettoyeur de chaudières.)

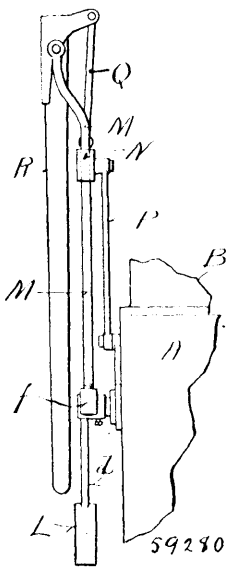


Henry Boehmer, Barrington, and Spencer R. Udell, Chicago, both in Illinois, U.S.A., 14th March, 1898; 6 years. (Filed 12th February, 1898.)

Claim.—1st. A boiler cleaner, comprising precipitating cylinders, and drums connected therewith, a pipe arranged in one of the cylinders adapted to discharge water over a deflector, a hood in said

cylinder, means for conveying water from one cylinder to the other and discharging it therein, and means comprising a hood and a deflector in the second cylinder, for directing the water to the boiler. 2nd. A boiler cleaner comprising precipitating cylinders, and drums connected therewith, a pipe arranged in one of the cylinders adapted to discharge water over an adjustable deflector, an adjustable hood in said cylinder, means for conveying water from the one cylinder to the other and discharging it therein, and means comprising an adjustable hood and an adjustable deflector in said second cylinder, for directing water to the boiler. 3rd. A boiler cleaner comprising precipitating cylinders, a pipe provided with means for collecting water and material from the water in the boiler and adapted to pass it into one precipitating cylinder, a deflector in the cylinder, beneath the pipe, a hood over said deflector, means for conveying water from one cylinder to the other, and discharging it therein, a deflector in the paths of the said cylinder, discharging water in the said last named cylinder, means for directing the water from the last named cylinder to the boiler, and mud drums connected to each cylinder for the purpose of collecting the precipitated material. 4th. A boiler cleaner, comprising precipitating cylinders, heads on said cylinders, a pipe provided with a skimmer located in the boiler and passing through said head into the precipitating cylinder, a deflector at the bottom of said pipe, an adjustable hood, arranged over and around said deflector, a passage from one cylinder head to the other, a deflector located in the second cylinder and provided with a surrounding hood, a pipe above said deflector for conveying water to the boiler, and mud drums connected with each cylinder for the purpose of collecting the precipitated material, and provided with blow off valves for the purpose of emptying them. 6th. A boiler cleaner, comprising precipitating cylinders, means for admitting water from the boiler to the cylinder, deflectors in said cylinders, hoods surrounding said deflectors, a passage from one cylinder to the other, and means for conveying water from the last named precipitating cylinder to the boiler. 7th. A boiler cleaner, comprising precipitating cylinders, means for admitting water from the boiler to the cylinder, deflectors in said cylinders, hoods surrounding said deflectors, a passage from one cylinder to the other, and means for conveying water from the last named precipitating cylinder to the boiler, and mud drums connected with the cylinders for the purpose of collecting the precipitated material.

No. 59,280. Gate. (Barrière.)

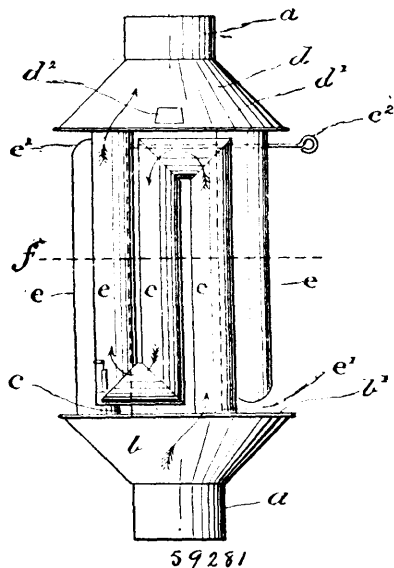


Frederick William Mase and Niels Rasmussen, both of Oshkosh, Wisconsin, U.S.A., 14th March, 1898; 6 years. (Filed 11th February, 1898.)

Claim.—1st. A horizontal arbor, suitable means for imparting rotary movement to the arbor, a gate comprising a section fast on said arbor and another section in pivotal connection with the one aforesaid, a cross-head guided on the arbor-connected gate-section, a cross-head link having play on a fixed pivot, and another link connecting said cross-head and pivotal gate-section. 2nd. A post, a

sleeve in bearings on the post, suitable means for imparting rotary motion to the sleeve, an arbor engaging said sleeve and having a latch connection therewith, a gate comprising a section fast on the arbor and another section in pivotal connection with the one aforesaid, a cross-head guided on the arbor-connected gate-section, a link connecting the cross-head and post, and another gate link connecting said cross-head and pivotal gate-section. 3rd. A post, an electric-motor on the same for control from a more or less distant switch-board, a motor-controlled worm-pinion, a worm-sector having terminal teeth of less length than the intermediate teeth, an automatic folding and rotary adjustable gate in connection with the worm-gear, and elastic buffers on the post in position to about the gate when the latter is up or down. 4th. A horizontal arbor, suitable means for imparting rotary movement to the arbor, a gate comprising a section fast on said arbor and another section in pivotal connection with the one aforesaid, a cross-head guided on the arbor-connected gate-section, a cross-head link having play on a fixed pivot, another link connecting said cross-head and pivotal gate-section, a flexible connection between said arbor and pivotal gate-section, and an arm in connection with the aforesaid cross-head provided with an eye engaged by said flexible connection.

No. 57,281. Stove Pipe Drum. (Poêle-sourd.)



William Buck and John Tobin, both of Winnipeg, Manitoba, Canada, 14th March, 1898; 6 years. (Filed 27th December, 1897.)

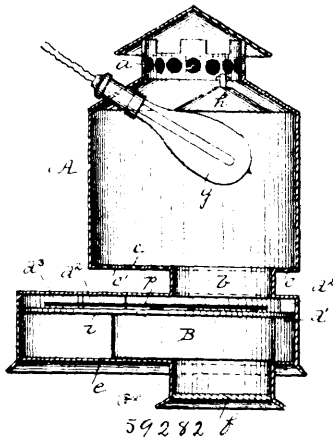
Claim.—A stove pipe drum, comprising zig zag pipes *e* having cleaning doors *e¹*, cone *b* having a stove pipe collar *a*, and plate *b¹* aperture *d* for the centre and zig-zag pipes *d*, cone *d* having a cleaning door *d²* and pipe collar *a¹*, and plate *d¹* apertured for the centre and zig-zag pipes, and centre pipe *c* having therein damper *c¹*, all formed and united as and for the purpose above set forth.

No. 59,282. Illuminated Sign Apparatus. (Appareil d'enseigne lumineuse.)

John Upton Barr, jr., Pittsburg, and William Benjamin Salt, Bennett, both in Pennsylvania, U.S.A., 14th March, 1898; 6 years. (Filed 22nd December, 1897.)

Claim.—1st. An illuminated sign apparatus, comprising a lens and a source of light, a clock dial, means for indicating the time, mechanism carrying a picture or pictures, and means for operating the time indicating apparatus and picture carrying mechanism, substantially as described. 2nd. An illuminated sign apparatus, comprising a lens and source of light, a picture or pictures, a transparent clock dial and hands, and mechanism connected to said picture or pictures and clock hands whereby the picture or pictures and time indicated by the clock dial and hands are displayed upon a surface at the same time, substantially as described. 3rd. An illuminated sign apparatus, comprising a lens and a source of light, a transparent clock dial, means for indicating the time, mechanism for carrying a picture or pictures, and means for operating said time indicating apparatus and picture carrying mechanism, substantially as described. 4th. An illuminated sign apparatus, comprising a lens and a source of light, a clock dial, means for indicating the time, mechanism carrying a picture or pictures and means for operating said time indicating apparatus and picture carrying mechanism, the entire apparatus being contained in a box or case, substantially as described. 5th. An illuminated sign apparatus, comprising a box or case containing a lens and the source of light, a set of pictures

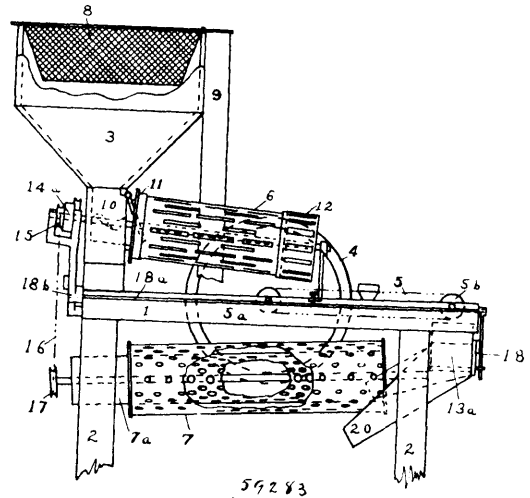
within said box or case, a transparent clock dial, a minute and hour hand carried on separate parts and mechanism connected to said



pictures and parts carrying the minute and hour hands, whereby the pictures and time indicated on the clock dial by the minute and hour hands are automatically displayed upon a surface, substantially as described. 6th. An illuminated sign apparatus, comprising a lens and a source of light, a clock dial, means for indicating the time, mechanism carrying a picture or pictures, means for operating the time indicating apparatus, and means for operating the picture carrying mechanism operatively connected to the apparatus for working the time indicating apparatus, substantially as described. 7th. An illuminated sign apparatus, comprising a lens and source of light, a clock dial, means for indicating the time, mechanism carrying a picture or pictures, clock-work mechanism for operating said time indicating apparatus, and clock-work mechanism for operating said picture carrying mechanism, substantially as described. 8th. An illuminated sign apparatus, comprising a lens and source of light, a clock dial, means for indicating the time, mechanism carrying a picture or pictures, clock-work mechanism for operating said time indicating mechanism, and clock-work mechanism for operating said picture carrying mechanism operatively connected to said first named clock-work mechanism, substantially as described. 9th. In illuminated sign apparatus, the combination with a box or case, containing a lens and the source of light, of a set of pictures within said box or case, a clock dial, clock-hands mounted on separate parts, clock work mechanism for operating the clock hands, clock work mechanism connected to the pictures, and mechanism connected to said first clock work mechanism for operating the second clock work mechanism to automatically change or shift the pictures, substantially as described. 10th. In illuminated sign apparatus, the combination with a box or case containing a lens and the source of light, of a set of pictures within said box or case, a clock dial, clock hands mounted on separate parts, clock work mechanism for operating the clock hands, clock work mechanism connected to the pictures, a ratchet wheel on said first clock work mechanism, a spring lever having a pawl thereon engaging with said ratchet wheel, a shaft connected to said spring lever, and a lever connected to said shaft at one end and having its opposite end engaging with a pin on a gear wheel mounted on a shaft in the clock work mechanism to automatically change or shift the pictures, substantially as described. 11th. In illuminated sign apparatus, the combination with a box or case containing a lens and the source of light, of a plate or body portion secured within the box or case, a transparent clock dial secured within said body portion, a transparent plate having the hour hand secured thereto, a flanged case around the transparent plate, a loose ring within the flanged case having the minute hand secured thereto, clock work mechanism secured to said body portion, and gear faces around said transparent plate and loose ring, adapted to engage with gear wheels on a shaft in the clock work mechanism, substantially as described. 12th. In illuminated sign apparatus, the combination with a box or case containing a lens and the source of light, of a plate or body portion secured within the box or case, a transparent clock dial secured within an opening in the body portion, a transparent plate having the hour hand secured thereto, a flanged case around the transparent plate, a loose ring within the flanged case having the minute hand secured thereto, clock work mechanism secured to said body portion at one side thereof, gear faces around the transparent plate and loose ring adapted to engage with gear wheels on a shaft in the clock work mechanism, a disc carrying a set of pictures secured on a shaft located within the body portion, clock work mechanism connected to said shaft, and mechanism connected to said first clock work mechanism for operating the second clock work mechanism to

automatically change or shift the pictures, substantially as described. 13th. An illuminated sign apparatus, comprising a lens and the source of light, a transparent clock dial, a transparent plate having the hour hand secured thereto, a loose ring having the minute hand secured thereto, and mechanism for operating said transparent plate and loose ring, substantially as described. 14th. An illuminated sign apparatus, comprising a lens and a source of light, a transparent clock dial, a transparent plate having the hour hand secured thereto, a flanged case around the transparent plate, a loose ring within the flanged case, and mechanism for operating said transparent plate and loose ring, substantially as described. 15th. An illuminated sign apparatus, comprising a lens and source of light, a transparent clock dial, a transparent plate having the hour hand secured thereto, a flanged case around the transparent plate, a loose ring within the flanged case, and gear faces around said transparent plate and loose ring adapted to engage with gear wheels on a shaft in a clock work mechanism, substantially as described.

No. 59,283. Bean Picking, Screening and Grading Machine. (Moissonneuse, tamis, etc., pour fèves.)



William C. Laird, West Bay City, and The Tawas Bay Lumber Company, East Tawas, both of Michigan, U.S.A., 14th March, 1898; 6 years. (Filed 8th February, 1898.)

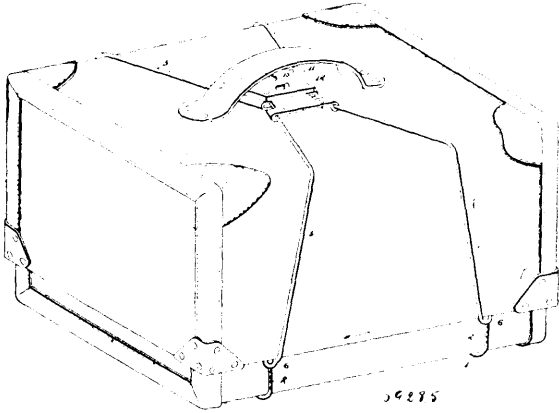
Claim.—1st. In a bean picking, screening and grading machine, the combination with a hopper, a cleaning cylinder and a travelling belt, of a spout at the end of said belt adapted to convey the beans discharged therefrom to the interior of one or more rotatable grading cylinders located below the belt, said cylinders being open at their lower ends and provided with circumferential perforations for grading beans, substantially as described. 2nd. In a bean cleaning machine, the combination with a hopper and a spiral feed screw, of a rotatable cleaning cylinder mounted upon the screw shaft, said cylinder being provided with flat sided corrugations having openings in their outer vertices for discharging the split beans and refuse therefrom, substantially as described. 3rd. The combination in a bean picking, screening and grading machine, of a receiving hopper having a pod extracting screen hinged therein and adapted to be raised about its hinge and emptied into a chute at the side of the hopper, a feeding screw and feed regulating gate in the lower end of said hopper, a rotatable cleaning cylinder having longitudinal corrugations provided with openings at their vertices, a spout or hopper to receive the sorted beans and discharge them into the grading cylinders, concentric perforated grading cylinders below the cleaning cylinders, adapted to be rotated in conjunction therewith, substantially as and for the purpose described. 4th. A cylinder or like device for cleaning beans, having flat sided corrugations and openings at or near the outer vertices of said corrugations, for discharging the dirt and split beans, substantially as described. 5th. In a bean cleaning cylinder, the combination with a cylindrical shell, of longitudinal corrugations formed therein, said corrugations being approximately flat sided, and provided with openings at or near their outer vertices, substantially as described. 6th. The combination with a bean cleaning machine having a cleaning cylinder and grading cylinders, of the means herein described for throwing the grading cylinders into or out of operation, consisting of a hopper having a double outlet, one part to the grading cylinder and one outside thereof, and a swinging door adapted to close either outlet, of a wheel 14 rotating with the cleaning cylinder and a wheel 14^a adjustably mounted to rotate in conjunction therewith and to drive the grading cylinders, together with the means for simultaneously shifting the swinging door of the hopper and throwing the wheels 14 and 14^a into or out of gear, substantially as set forth and for the purpose described.

No. 59,284. Composition for Curing Knots on Plum Trees. (*Composition pour le traitement des pruniers.*)

James D. Power and Duncan Finlayson, both of Arichat, Nova Scotia, assignees of Roderick McRae, Points, West Bay, Nova Scotia, 14th March, 1898; 6 years. (Filed 22nd November, 1897.)

Claim.—A composition for the cure of knots on plum trees, consisting of blood, salt, sulphate of iron, loam and water, in the proportions, substantially as described.

No. 59,285. Luggage Carrier. (*Valise.*)



Arthur Wolcott Harrison, Washington, Columbia, U.S.A., and Joseph A. Marion and Horace G. Seitz, both of Montreal, Quebec, Canada, 14th March, 1898; 6 years. (Filed 12th November, 1897.)

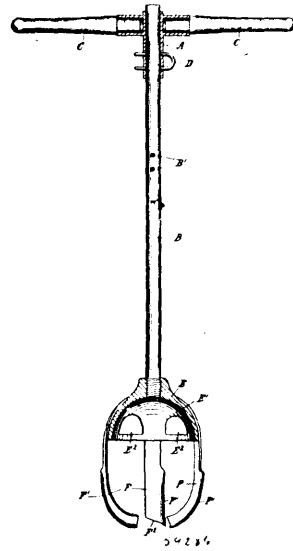
Claim.—1st. A fastening device for a telescoping bag, comprising a lower section for supporting the bottom thereof, and a closure for the cover, said closure being permanently connected with the lower section and adapted to slide thereon. 2nd. A fastening device for a telescoping bag, comprising a frame or section to receive the bottom of the bag, and two metallic sections adjustable thereon and adapted to be moved to and from positions over the cover of the bag and provided with means for securing them together over said cover. 3rd. A fastening device for a telescoping bag, comprising a plurality of metallic sections adapted to be separated from each other to permit of the opening of the bag and carrying locking mechanism for securing said sections together. 4th. A fastening means for a telescoping bag, comprising in its construction a frame having two vertical rods on each side thereof, and a pair of bails adapted to be engaged with each other over the cover of the bag and provided with eyes or loops which are vertically adjustable on the said vertical rods. 5th. A fastening means for a telescoping bag, comprising in its construction a frame having two vertical rods on each side thereof, and a pair of bails adapted to be engaged with each other over the cover of the bag and provided with eyes or loops which are vertically adjustable on the said vertical rods, and means for locking the bails together. 6th. The combination with a collapsible or telescoping bag, of a collapsible or telescoping frame surrounding the two parts of the bag and adapted to be opened to permit of the removal of the bag cover. 7th. A fastener for a telescoping bag, comprising in its construction upper and lower sections permanently connected together and adapted to be adjusted relatively to each other, and means whereby they may be locked in their relative positions when adjusted. 8th. A telescope bag having a metallic fastener composed of a plurality of sections and a single lock for securing the sections together. 9th. A telescope bag having a metallic fastener composed of a plurality of sections adapted to enclose the bag, and carrying locking mechanism. 10th. A telescope bag having a metallic fastener composed of a plurality of sections adapted to enclose the bag and support the cover of the bag against downward movement. 11th. The combination with a collapsible or telescoping bag, of a collapsible or telescoping frame surrounding the two parts of the bag and separable above the bag cover to permit of the removal of said cover, and adapted to support the said cover against downward movement when the separable parts are connected.

No. 59,286. Earth Auger. (*Sonde à trépan.*)

Norman F. Roadhouse, Blyth, Ontario, Canada, 15th March, 1898; 6 years. (Filed 3rd March, 1898.)

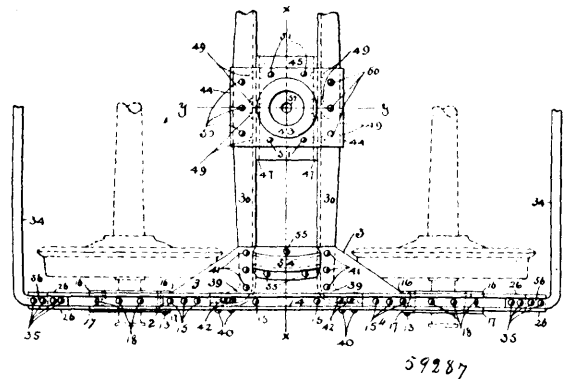
Claim.—1st. In an earth boring auger, the head A, formed with a central opening A¹, and the handles C C, secured to said head in combination with the arm B, extending through said opening A¹, and means for holding said head at the position or elevation to which it may be adjusted on said arm, substantially as and for the purpose set forth. 2nd. In an earth boring auger, the head A, formed with a central opening A¹, with the socket A², and the pair of holes A³,

in combination with the arm B, formed with two or more pairs of holes B¹, the handles C C, and the staple D, substantially as and



for the purpose set forth. 3rd. In an earth boring auger, the bonnet E, formed with a cavity E¹, substantially as and for the purpose set forth. 4th. In an earth boring auger, the blade F, the lower portion of one edge of which is formed with an offset in the form of an outwardly curved cutting lip F¹, substantially as and for the purpose set forth. 5th. In an earth boring auger, the head A, in which a central opening A¹ is formed, the handles C C, secured thereto and the arm B, fitted to and projecting through said opening A¹, and means for holding said head and arm at the position or elevation to which they may be adjusted, in combination with the bonnet E, and the blades F, substantially as and for the purpose set forth. 6th. In an earth boring auger, the head A, in which the central opening A¹, and the pair of openings A² are formed, the handles C C, secured to said head and the arm B, in which is formed two or more pairs of holes B¹, and the staple D, in combination with a bonnet E, in which a cavity E¹ is formed, and the blades F, substantially as and for the purpose set forth. 7th. In an earth boring auger, the head A, in which the central opening A¹, the sockets A², and the pair of openings A³ are formed, the handles C C, and the arm B, in which is formed two or more pairs of holes B¹, and the staple D, in combination with the bonnet E, in which the cavity E¹, and recesses E² are formed, and the blades F F, the lower portion of one edge of which is provided with an offset in the form of an outwardly curved cutting lip F¹, substantially as and for the purpose set forth.

No. 59,287. Steel Freight Railway Car. (*Char en acier pour marchandises.*)



Frederick S. Owen, Waltham, Massachusetts, U.S.A., 15th March, 1898; 6 years. (Filed 3rd March, 1898.)

Claim.—1st. In a car truck, a central panel having flanges inwardly turned at each side and end, pedestals of U-section secured to the end flanges and projecting below the panel, and a bar of U-section seated upon the top flange of the panel and upon the pedestals but within the flanges thereof, turned down over the outer leg of the pedestals, within their flanges, and thence turned and pro-

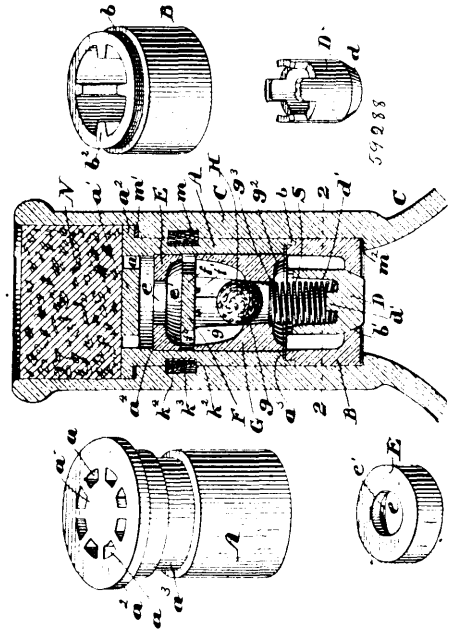
jecting outward at about midway of the pedestals length, and united to the central panel and the pedestals, substantially as set forth. 2nd. In a car truck, a central panel having inwardly projecting flanges from each side and from each end, the ends of the panel passing within the flanges of pedestals of U-section and thereto secured through the panel and pedestal flange, and through the panel flange and pedestal, a bar of U-section seated upon the top flange of the panel and upon the pedestals within their flanges and secured to the panel flange and the pedestals at their tops and outer sides and thereafter outwardly turning and projecting, and a bar secured to the lower flange of the panel, then turned down passing within the pedestal flanges and secured to the panel flange and the pedestal in manner, substantially as described. 3rd. In a car truck, a central panel, substantially as described and united to pedestals of U-section at its ends, and at its top to a U-section bar embracing the pedestals, and braces from the inner pedestal legs to a bar secured to the inner legs of the pedestals and the central panel in manner and form, substantially as described. 4th. In a car truck, a central panel flanged as set forth, pedestals doubly secured to the ends of the panel, a bar secured to the lower flange of the panel and pedestals, an overlapping bar secured to the upper flange of the panel and the upper and outer sides of the pedestals, and a brace secured to the outer lower pedestal leg and the overlapping bar, substantially as set forth. 5th. In a truck, a central panel flanged upon its sides and ends, double flanged pedestals of inverted J shape secured to the ends of the panel, a bar overlapping the outer sides of the pedestals and secured upon the top thereof and the panel, a bar secured to the lower edge of the panel and the pedestals, braces from the pedestals to the panel, braces from the pedestals to the bar overlapping and seated on the pedestals and within their flanges and ties seated and secured to the pedestal legs in manner and form, substantially as set forth. 6th. In a truck frame, central panels thereof having flanges at each end, flanges at the top and bottom thereof broadened at the centre and tapering thereafter towards each end, and transoms of U-section extending transversely from the inside of one panel to the inside of the other panel, the ends of the transoms passing between the upper and lower flanges of the panel and thereafter outwardly turned and seated upon the panel, and means to secure the transom ends to the panels, their flanges, the pedestal braces and the bar overlapping the panels upper flange and the pedestals, in manner and form substantially as described. 7th. In a truck, side panels formed and united at their end flanges to pedestals of U-shape and U-section, at their upper flanges to transoms and a bar of U-section overlapping and secured to the pedestals at their top and outer side, at their bottom flanges to transoms to a bar also united to the pedestals at their inner side, to braces secured to the pedestals at their outer end, and to the panel, the lower bar, and transoms at their inner end, means to secure the transoms to the panels, and means to tie the transoms at their centre at their upper and lower parts, substantially as described. 8th. In a truck, a central panel, pedestals secured thereto as described, a lower bar and braces secured thereto, an upper bar embracing the panel and pedestals and secured thereto, and thereafter outwardly turned, end braces from the pedestals to the upper bars, and transverse ties seated on and secured to the outwardly turned ends of the upper bars, and reaching across from side to side of the truck, all in form and attachment substantially as and for the purposes set forth. 9th. In a truck, central flanged panels, pedestals of U-section and J-shape overlapping and secured thereto, lower bars secured to the panels and the pedestals inner leg, braces from the inner leg of the pedestals to the lower bar and panel and secured thereto and to the transoms end flanges, overlapping bars upon the upper part of the panel and the pedestal at their tops and outer sides and secured thereto, transverse ties from the outer ends of the overlapping bars and seated thereon, and braces secured to the lower end of the outer pedestal legs and to the outer end of the overlapping bars and the cross-ties, substantially as described. 10th. In a car truck, a central panel having upper and lower inwardly projecting flanges embracing and secured to transoms, pedestals of U-section secured to the central panel by means of inwardly projecting flanges formed thereon and by double flanges on the pedestals, a bar secured to the lower flange of the central panel and thereafter downwardly turned to fit the pedestals inner legs and secured and braced to the panel and pedestals, an upper bar of U-section secured to the upper flange of the central panel, passing within the flanges at the top and outer side of the pedestals and secured thereto, its outer ends turned outwardly and braced to the outer pedestal legs, and means upon the outer ends of the upper bar ends for their connection from one side to the other of the truck outside of the wheels, substantially as described.

No. 59,288. Bottle Closure. (Fermeture de bouteilles.)

Julius Henry Wittekind, Boston, Massachusetts, U.S.A., 15th March, 1898; 6 years. (Filed 2nd March, 1898.)

Claim.—1st. A bottle stopper, comprising a cap and a base, having their opposite headed ends perforated, the latter to constitute a central valve seat and the former to constitute an annular series of openings with a closed center, said cap having an internal shoulder slightly removed from its head, an annular piece resting on said shoulder, concave on its under side and having a central opening out of register with said series of openings, a stop piece engaging said annular piece and having a central stop larger than the said

central opening, a cylindrical block having a central tapered valve seat, a float valve therein, and a gravity valve in said base, sub-



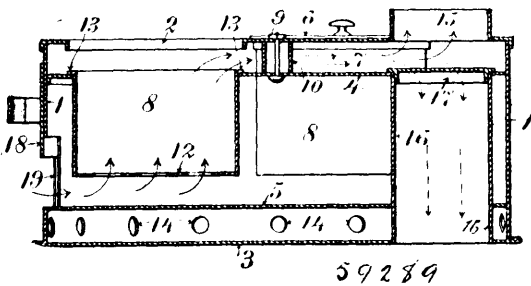
stantially as described. 2nd. A bottle stopper, comprising a cap having an external flange *a'*, a perforated outer end, an internal shoulder adjacent thereto, a cylindrical exterior, and a slightly tapering or conical interior, an annular piece, a stop, and a valve block, resting successively against each other and occupying the space between said shoulder and the inner end of said cap, said block having a tapering valve seat and passage, a float valve therein, the lower end of said block having an undercut portion to retain a spring, a spring therefor, a lower valve seat, and a valve therefor, said valve being engaged by said spring, substantially as described. 3rd. The combination with a bottle stopper and a bottle within which said stopper is placed, of a pocket between the stopper and the bottle neck, and an explosive therein capable of shattering the neck when exploded, substantially as described. 4th. The combination with a bottle stopper, of a pocket, an explosive therein, and a spring adjacent and to act upon the explosive and engaging the bottle, removal of the stopper causing said spring to explode said explosive, substantially as described. 5th. The combination with a bottle stopper and a bottle neck, provided with registering recesses, of a spring fitting snugly in one of said recesses and having a resilient tongue extending into the other recess, and an explosive in said recesses, to be exploded by the action of said spring upon attempted removal of the stopper, substantially as described. 6th. The combination with a bottle, of a bottle stopper, comprising a cap having an external flange *a'*, and a perforated outer end, said flange being adapted to rest on an internal shoulder provided in the bottle neck, a washer being pressed between and by said flange and shoulder, an annular piece, a stop, and a valve block, resting successively next to each other within said cap, and a valve within said block operating between the same and said stop, the lower end of said block being flush with the lower end of said cap, a base containing a valve, and valve seat at its lower end, and at its upper end abutting the lower end of said cap, a washer on top of said base covering the joint between said block and cap, and a washer at the lower end of said base between the latter and the bottle neck, substantially as described.

No. 59,289. Stove. (Poêle.)

Robert Fletcher, Toronto, Ontario, Canada, 15th March, 1898; 6 years. (Filed 1st March, 1898.)

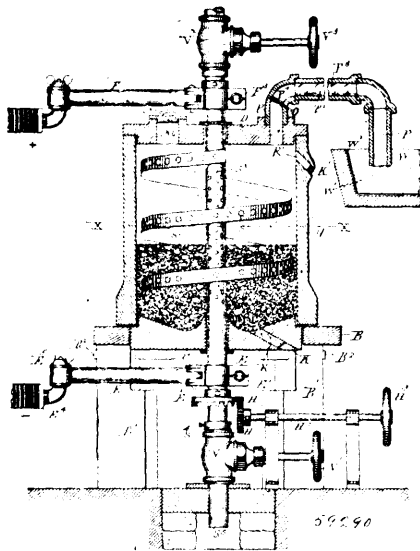
Claim.—1st. In a stove, the removable fire-pot having closed sides, a perforated bottom, and means by which it is supported, substantially as shown and described. 2nd. In a stove, a sheet metal fire pot lid having a flange by which it is supported, and a deep rim to cover the mouth of the fire-pot, substantially as shown and described. 3rd. In a stove, a pipe extending within to discharge through the bottom of the stove by downward draught, substantially as shown and described. 4th. In a stove, the combination of the removable fire-pot having closed sides, a perforated bottom, and means by which it is supported with a flanged lid having a deep rim to cover the said fire-pot, substantially as shown and described. 5th. In a stove, the combination of the removable fire-pot, as specified, the flanged lid having a deep rim to cover said fire-pot, and an upper deck to support said fire-pot, substantially as shown and described. 6th. In a stove, the combination of the fire-pot, as specified, the flanged lid having a rim as specified, the upper and lower

decks, and the top having lid openings and pipe thimble, substantially as shown and described. 7th. In a stove, the combination of



the fire-pot as specified, the flanged lid carried in the top and having a rim to cover the fire-pot, the lower deck and bottom as provided, and the pipe extending downward through said decks and bottom, and the removable cap for said pipe, substantially as shown and described.

No. 59,290. Electric Furnace. (Fournaise électrique.)



George Dexter Burton, Boston, Massachusetts, U.S.A., 15th March, 1898; 6 years. (Filed 9th November, 1897.)

Claim.—1st. The process of separating metal from ore containing combustible matter which consists in subjecting the ore under exclusion of air to an electric heat below the fusing point of the metals for driving off the bi-products, then admitting a gas containing oxygen thereby causing combustion, and subjecting the ore to the combined heat of combustion and electricity at a temperature above the fusing point of the metals and causing them to melt and leave the ore. 2nd. The process of separating metals from ores containing metals of different melting points, which consists in subjecting the ore under exclusion of air to an electric heat below the fusing point of the metals for driving off the bi-products, then admitting a gas containing oxygen thereby causing combustion, subjecting the ore to the combined heat of electricity and combustion at a temperature above the fusing point of one metal contained in the ore and maintaining the temperature by regulation of the electric current below the fusing point of another metal, for melting out the metal of low fusing point, then increasing the current and raising and maintaining the heat at or above the fusing point of another metal for melting it out. 3rd. The process of separating metals from ore containing a plurality of metals of different melting points, which consists in subjecting the ore to a minutely regulated electric heating current until one of the metals is separated and eliminated from the ore, and then increasing the current and maintaining the heat at or above the fusing point of the next higher metal, all the metals being fused in succession in one operation. 4th. The process of separating metals from ores containing combustible matter, which consists in subjecting the ore to a temperature sufficient to expel the watery vapor contained therein, subjecting the ore, under exclusion of air, to a higher temperature, sufficient to force off metallic particles and fumes contained in the ore, then admitting a gas containing oxygen, thereby causing combustion, and subjecting the ore to a still higher temperature of a sufficient degree to melt the metallic particles contained in the ore and cause them to leave the

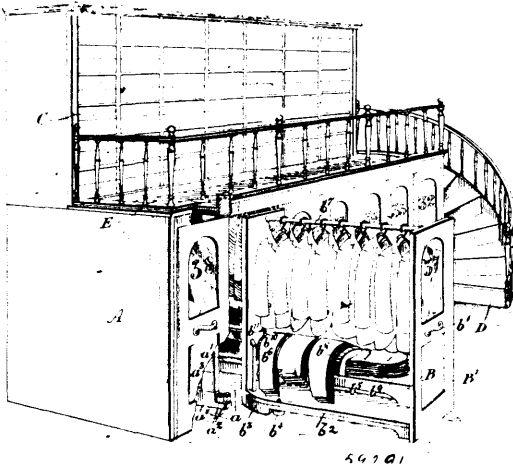
ore in a melted state. 5th. The process of separating metal from ore, which consists in heating the ore by electricity to a heat sufficient to expel the moisture from the ore, increasing the volume of the current and expelling the sulphurous particles under exclusion of air while the heat is at a less degree than is necessary to melt the metal in the ore, and increasing the volume of the current and the heat to a fusing temperature for the metal in the ore, and admitting air thereto. 6th. The method of separating metals from ores containing combustible matter, which consists in subjecting the ore to an electric heating current under exclusion of air until the fumes and floating particles of metal carried by them are eliminated, then admitting a gas containing oxygen, thereby causing combustion, and subjecting it to the combined heat of combustion and electricity for fusing the metal, and then continuing the electric heat under the exclusion of air. 7th. The process of separating metal from ore containing impurities, such as sulphur, which consists in subjecting the ore to a variable current of electricity sufficient in volume to desulphurize the ore, then varying and increasing the current in volume and developing a heat thereby sufficient to melt and liquefy the metal contained in the ore, and then decreasing the electric current as the liquid metal is drawn off, thereby maintaining the heat at a proper temperature to correspond with the decreased amount of ore under treatment. 8th. In an electric smelting furnace, the combination of a reducing chamber for containing the ore, a hollow perforated electric conductor in said reducing chamber adapted to distribute both electricity and air or gas to the ore in said chamber, means for passing an electric current through said conductor for heating the ore in said chamber, and means for supplying air to said hollow perforated conductor for admission to said chamber. 9th. In an electric furnace, the combination of a reducing chamber for containing ore, a hollow perforated electric conductor in said chamber provided with electric and gas distributing wings or projections, means for connecting said conductor with a source of heating, electric current for reducing the ore in said reducing chamber, and means for supplying air or gas to said hollow conductor for admission to said chamber. 10th. In an electric furnace, the combination of a reducing chamber for containing ore, a hollow perforated electric conductor in said chamber provided with electric and gas distributing wings or projections, means for connecting said conductor with a source of heating, electric current for reducing ore in said reducing chamber, means for supplying air or gas to said hollow conductor for admission to said chamber, and means for rotating said conductor in said chamber. 11th. In an electric smelting furnace, the combination of a reducing chamber for containing ore to be melted, a precipitating chamber for the by-products, a pipe connecting said reducing chamber with said precipitating chamber, and provided with magnets for arresting magnetic particles of metal, and means for heating said reducing chamber. 12th. In an electric smelting furnace, the combination of a reducing chamber for containing ore, a hollow perforated conductor in said chamber, means for connecting said electrode with a source of electric heating current, and means for admitting air or gas to said electrode for admission to said chamber, and means for controlling the flow of said air or gas. 13th. In an electric smelting furnace, the combination of a reducing chamber for containing ore, a hollow perforated conductor in said chamber, provided with a hollow perforated spiral wing, means for connecting said electrode with a source of electric heating current, means for admitting air or gas to said electrode for admission to said chamber, and means for controlling the flow of said air or gas. 14th. In an electric smelting furnace, the combination of a reducing chamber for containing the ore, a hollow perforated electrical conductor in said chamber, conductors connecting the source of a heating current with said electrical conductor, and means for regulating the electric current passing through said conductor. 15th. In an electrical furnace, the combination of a reducing chamber, two electrodes for contact with the substance in said chamber, one of said electrodes being movable and adapted to move as said substance is reduced, so as to maintain contact with the remainder thereof.

No. 59,291. Wardrobe or Cabinet. (Garde-robe.)

John Ernest Kennedy, Montreal, Quebec, Canada, 15th March, 1898; 6 years. (Filed 3rd March, 1898.)

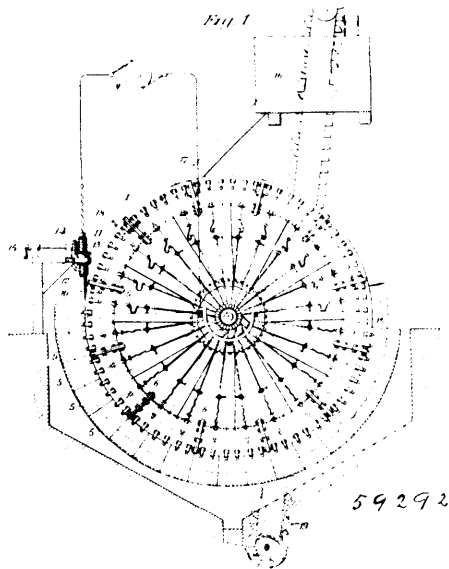
Claim. 1st. A cabinet or wardrobe, comprising an open fronted case, a plurality of cars adapted to fit therein and means for independently removing such car therefrom, as and for the purpose specified. 2nd. A cabinet or wardrobe comprising an open fronted case, a plurality of cars adapted to fit therein, supported on wheels and castors and having horizontal guide wheels near the rear thereof adapted to roll against fixed guide strips and means for independently removing said cars from said case, as and for the purpose specified. 3rd. A cabinet or wardrobe comprising an open fronted case, a plurality of cars adapted to fit therein, and supported on wheels and castors, guide wheels near the rear thereof adapted to roll against fixed guide-strips, guide wheels journaled near the front of the said case, and means for independently removing said cars from said case. 4th. In a cabinet or wardrobe in combination, an open fronted case, a plurality of cars adapted to fit therein, supporting wheels or castors therefor, side guide wheels *b*¹, near the rear thereof, the fixed guide strips *a*¹, the two guide wheels *a*² placed at the front of said strip and adapted to roll each against the side of the car on one side of said strip, the side of the car slightly

receding at the rear thereof, and means for independently removing said car from said case. 5th. In a cabinet or wardrobe in combina-



tion an open fronted case, a plurality of cars adapted to fit therein, and door fronts for such cars adapted to completely close the front of the cabinet or wardrobe when in place, the handles attached to the front thereof, and means for guiding the said cars while being moved in or out of said case. 6th. In a cabinet or wardrobe in combination, an open fronted case, a plurality of display cars supported on wheel and castors, the rear partition B², the front partition B¹ adapted to completely close front of wardrobe or cabinet when all are in place, the handle b¹, the shelf b², means for supporting said shelf in position, the rounded top portion b³, and remaining flat top portion b⁴ of said shelf, the rod b⁵, and means for guiding the said display car when moved in or out of said case. 7th. In a cabinet or wardrobe in combination, an open fronted case, a plurality of display cars adapted to fit therein, shelves adapted to be vertically adjustable on said cars, horizontal rods suitably supported longitudinally of the cars above said shelves and means for moving and guiding said cars in or out of said case.

No. 59,292. Electric Furnace. (Fournaise électrique.)

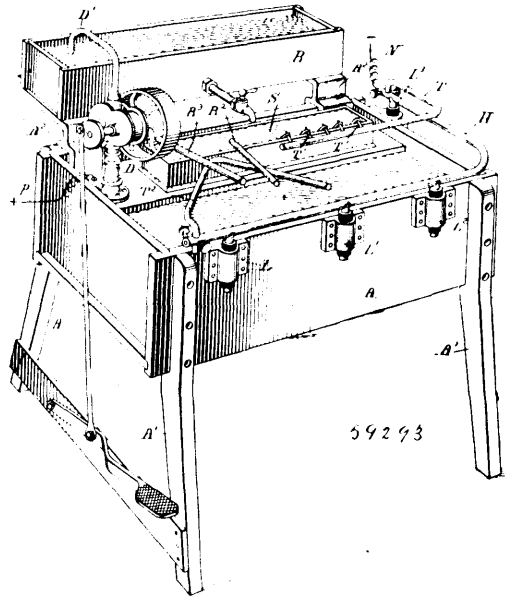


Charles Schenk Bradley, Avon, U.S.A., 15th March, 1898; 6 years. (Filed 30th October, 1897.)

Claim.—1st. An electric furnace comprising a receptacle to contain a charge of material to be operated upon, electric connections for leading a current through the charge from an external circuit, including a current leading electrode extending into the receptacle, and means for effecting a continuous downward movement of the charge relatively to the electrode. 2nd. An electric furnace comprising a sectional receptacle for the charge of material to be operated upon, electric connections for leading the current through the charge from an external circuit including a current-leading electrode extending into the receptacle and means for effecting a continuous recession of the receptacle and charge relatively to the

electrode, the several sections of the receptacle being capable of removal. 3rd. An electric furnace, comprising a rotary annulus turning on a horizontal axis, means for forming a closed receptacle for a charge of material to be operated upon over an arc at the lower part of the annulus, and a current leading electrode at one end of the arc-shaped receptacle. 4th. An electric furnace, comprising a rotary annulus turning on a horizontal axis, and means for forming a receptacle for material to be operated upon over an arc at the bottom of the annulus, an electrode at one end of the arc-shaped receptacle, and a source of supply for fresh material around the electrode. 5th. A electric furnace comprising a rotary annulus turning on a horizontal axis, removable rim-sections for forming a closed receptacle for material to be treated by the furnace over an arc of the annulus, a current leading electrode in operative relation to the receptacle when the sections are in place, and means for sealing the joints to prevent leakage of the material to be treated. 6th. An electric furnace provided with a sectional receptacle for the charge movable with relation to an electrode, electric connections with the inside of the receptacle the sections being capable of removal, a feed-hopper for supplying material, and an elevator for returning the unconsumed material to the hopper. 7th. An electric furnace comprising a rotary wheel turning on a horizontal axis, removable rim-sections forming a receptacle for a charge over an arc of the wheel, a current leading electrode connecting with one pole of an electric generator, conducting plugs in the wall of the wheel-rim projecting into the receptacle space, and a commutator for cutting the plugs successively into circuit.

No. 59,293. Electric Thermal Treatment of Metals, Ores, etc. (Traitement électrique des métaux, minerais, etc.)

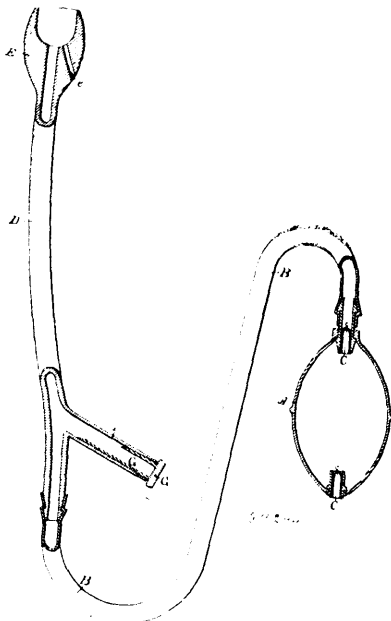


George Dexter Barton, Boston, Massachusetts, U.S.A., 15th March, 1898; 6 years. (Filed 30th October, 1897.)

Claim.—1st. In an electrolytic device, a main tank adapted to receive the electrolytic solution and provided with a well, in combination with a second tank provided with a fluid-conductor adapted to conduct the solution to the well, substantially as described, whereby the well may be kept constantly full to overflowing, as set forth. 2nd. In an electrolytic heating device, a main tank adapted to receive the electrolytic solution and provided with a plurality of wells, the tops of which are above the edge of the main tank, in combination with a second tank provided with a fluid-conductor adapted to conduct the solution to the well, substantially as described, whereby the well may be kept constantly full to overflowing, as set forth. 3rd. In an electrolytic heating device, a main tank adapted to receive the electrolytic solution and provided with a well, the top of which is above the edge of the main tank, in combination with a second tank provided with a fluid-conductor adapted to conduct the solution to the well, substantially as described, whereby the well may be kept constantly full to overflowing, as set forth. 4th. In an electrolytic heating device, a tank holding an electrolytic solution electrically connected to a source of electrical supply, in combination with one or more wells the upper ends of which are open and above the surface of the fluid in the tank, and are electrically connected with the fluid in the tank, and are adapted to be made to overflow to cause the fluid to connect with the article to be heated, substantially as described. 5th. In an electrolytic heating device, a main tank having wells extending above the edge of the tank, in combination with a second tank having outlet-conductors adapted to deliver the fluid contents of the said tank to the said wells in the

main tank, and means for providing the fluid with an electrical current, substantially as described. 6th. In an electrolytic heating device, the combination of a main tank, a second tank, brackets on main tank adapted to support said second tank, said main tank containing one or more wells to support the metal to be heated, and means for providing the fluid with an electrical current, substantially as described. 7th. In an electrolytic heating device, the combination of a main tank with one or more wells, partly above the surface of the liquid in the tank, and means for causing the wells to overflow, said wells constructed irregular in outline, as shown, whereby definite portions of the article to be heated may be exposed to the heating action, substantially as described. 8th. In an electrolytic heating device, a receptacle containing an electrolytic solution, said solution connected to a suitable source of electricity, in combination with a brazing device consisting of a carbon electrically connected and brought into electrical connection with the solution, and developing a flame of sufficient intensity to accomplish the brazing, substantially as described. 9th. In an electrolytic heating apparatus, a main tank containing an electrolytic solution, a series of open hearths situated above the edge of said main tank, and across which is placed the metal to be heated, said hearths supplied with an electrolytic overflowing solution, substantially as described. 10th. In an electrolytic heating apparatus, a main tank containing an electrolytic solution, a well having a non-conducting hearth for supporting the metal to be heated, said hearth extending above the edge of the tank, said hearth also being in contact with the solution in the well and permitting the solution to overflow said hearth during the metal-heating operation. 11th. In an electrolytic heating apparatus, a main tank adapted to receive the electrolytic solution and provided with one or more wells the tops of which are above the edge of the main tank, said wells electrically connected to a proper source of electricity, and adapted to support the metal to be heated in combination with means for elevating the solution from the main tank, to a second tank, and a second tank adapted to contain the electrolytic solution which is transferred from tank to tank, at will, as described. 12th. In an electric metal-working apparatus, the combination of a well, an electrolytic solution therein, means for supplying the solution to said well and causing an overflow thereof, and electric conductors connecting said solution with the positive pole of the electric source.

No. 58,294. Insufflator. (Inhalateur.)



Francis M. Elliott, Aurora, Illinois, U.S.A., 16th March, 1898; 6 years. (Filed 17th January, 1898.)

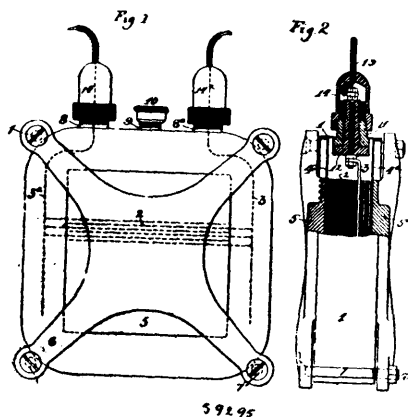
Claim.—In an insufflator, the combination of the valved bulb, the tube connected therewith having a discharge nozzle, the branch of said tube inclining inward and forward, and a removable, hollow stopper for said branch, substantially as and for the purpose specified.

No. 59,295. Electric Condenser. (Condenseur électrique.)

Charles Schenck Bradley, Avon, New York, U.S.A., 16th March, 1898; 6 years. (Filed 27th July, 1897.)

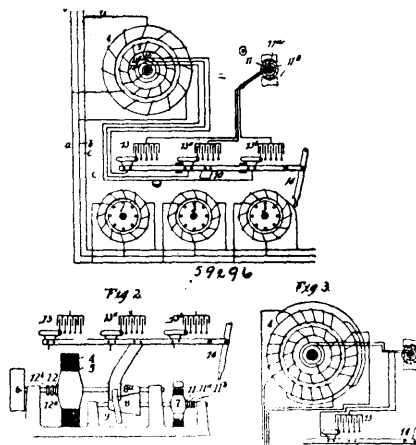
Claim.—1st. An electric condenser, having its condensing plates and dielectric enclosed air tight in a metallic casing hermetically sealed at the joints to exclude moisture of the air and preserve the condenser's capacity unaltered. 2nd. An electric condenser, having its plates held between stiff side plates, and a rim soldered to the

side plates while compressed. 3rd. An electric condenser, having its plates held under pressure in an air-tight casing by a strong



frame, projecting beyond the edges of the casing. 4th. An electric condenser, having its plates in an air-tight casing enclosed within a strong metallic frame having a large heat-radiating surface.

No. 59,296. Electric Generator. (Générateur électrique.)



Charles Schenck Bradley, Avon, New York, U.S.A., 16th March, 1898; 6 years. (Filed 26th October, 1897.)

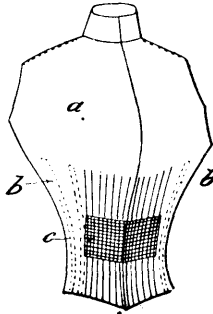
Claim.—1st. An alternating current electric generator, provided with means for varying the rate of alternation, and adjusting devices to vary the product of capacity and inductance to produce resonance at the several rates. 2nd. An alternating current generator, provided with a rotary field winding on its magnetizing element, an alternating current exciter for furnishing the magnetizing current, and means for varying the rate of alternation of the exciter. 3rd. An alternating current generator, provided with a rotary field winding on its magnetizing element, an exciter of variable rate of alternation, and adjusting devices for varying the product of capacity and inductance to produce electrical resonance. 4th. The herein described system, comprising one or more induction motors, a generator having its generating winding connected therewith, and a rotary field winding on its magnetizing element, and means for varying the speed of the rotary field. 5th. The herein-described system, comprising one or more induction motors, an induction generator having its secondary connected with said motor and a rotary field winding on its primary, means for varying the speed of the rotary field, and adjusting devices for varying the capacity inductance product of the rotary field circuits to vary the speed of the motor.

No. 59,297. Garment Pattern. (Patron de vêtements.)

Catherine Kenniss and Robert Emerson, both of London, England, 16th March, 1898; 6 years. (Filed 21st June, 1897.)

Claim.—1st. As a new article of manufacture, a shape, pattern or lining of suitable material and provided with steels or bones for the purpose of ensuring the fit of the garment upon the wearer. 2nd.

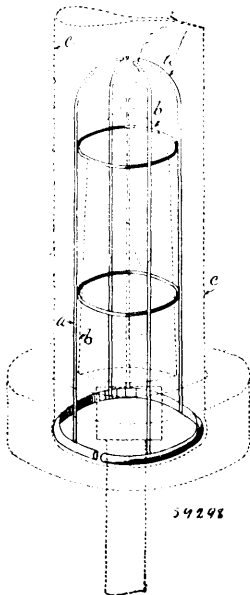
steels or bones secured thereto, said pattern shape, or lining being As a new article of manufacture, a pattern, shape, or lining, having



59297

provided with an elastic or expanding front for use in case of pregnancy.

No. 59,298. Mantle Guard. (Garde-pellicules.)

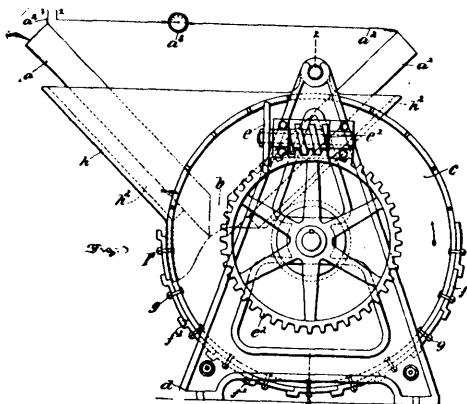


59298

Arthur Trewin, Watford, Hertfordshire, England, 16th March, 1898; 6 years. (Filed 4th October, 1897.)

Claim.—A guard or protector formed of suitable material, such as wire, and which is placed over the mantle of an incandescent gas lamp for the purpose of preventing injury to same, and consisting of four or more upright pieces of wire which are bent at their top ends and secured to a flexible ring at their lower ends being supported by two or more supporting rings of wire attached to same at required distances apart, substantially as described.

No. 59,299. Electric Furnace. (Fornaise électrique.)



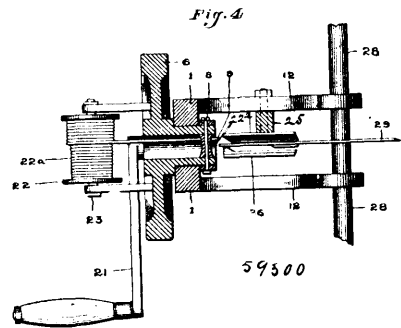
59299

William Smith Horry, Saulte Ste Marie, Michigan, U.S.A., 16th March, 1898; 6 years. (Filed 16th October, 1897.)

Claim.—1st. An electric furnace, comprising the combination of means for producing an electric arc in a substantially fixed position, a bottomless hopper for feeding the material into the arc, an annular rotatable receptacle provided with removable plates or covers and arranged below said hopper, and means for rotating said receptacle, substantially as described. 2nd. An electric furnace, comprising the combination of a bottomless hopper, electrodes supported on the walls of said hopper, circuit connections for the electrodes, a rotatable receptacle arranged below said hopper, and plates removably applied to the periphery of said receptacle, substantially as described. 3rd. An electric furnace, comprising the combination of an annular receptacle having removable cover-plates, means for rotating said receptacle, and electric devices for fusing and delivering material to the interior of said rotating receptacle, substantially as described.

No. 59,300. Wire Weaving Machine.

(Machine a tisser le fil de fer.)



59300

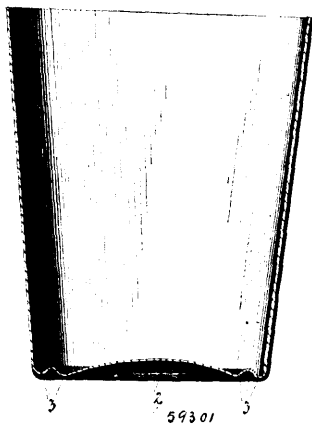
Herman Carter, Mt. Sterling, Ohio, U.S.A., 16th March, 1898; 6 years. (Filed 28th February, 1898.)

Claim.—1st. In a mechanism for uniting the vertical and horizontal wires of a fence, the combination of a weaver body, a wheel 6 journaled thereon, a cylindrical shaft in said wheel, a slotted opening and cross pin in said shaft as described, a recess in said wheel, a corresponding recess in the end of said weaver body and a wire carrying reel journaled from said wheel, said weaver body being rotatively and movably supported adjacent to the line of horizontal fence wires and means for rotating said wheel, substantially as described. 2nd. In a mechanism for uniting the vertical and horizontal wires of a fence, the combination with a weaver body, a recessed wheel 6 journaled thereon, a cylindrical shaft in said wheel having a slotted opening communicating with said wheel recess, a cross pin in said shaft, a recess in the end of the weaver frame with which the wheel recess is adapted to register, of a standard 25, a vertical shaft supported from and adjacent to said standard, horizontal wire receiving arms 26 at intervals on said standard, a rotating and sliding connection between said weaver body and said vertical shaft, and a curved finger projecting from an arm of said weaver body and adapted to bear on the desired one of said arms 26, and means for rotating said wheel 6, substantially as and for the purpose specified. 3rd. In a mechanism for uniting the vertical and horizontal wires of a fence, the combination with a standard 25, a series of wire receiving arms horizontally secured thereto, and a vertical shaft 28 supported in front of and adjacent to said standard, of a weaver body, arms 12 projecting therefrom and mounted as described on said shaft 28, a finger 13 extending from one of said arms 12 and adapted to bear upon one of said arms 26, a rotating tubular shaft mounted in said weaver body, a cross pin in said shaft and a wire carrying reel rotating with said shaft, substantially as specified. 4th. In a mechanism for uniting the horizontal and vertical wires of a fence, the combination with the body 1, a wheel 6 journaled thereon, a tubular shaft in said wheel, a slotted opening in said shaft, a recess in said wheel as described and a corresponding recess in said body 1, a socket in the rim of said wheel diametrically opposite and in line with said wheel recess, a wire carrying reel upon said wheel, a spring actuated catch rod fulcrumed to said body 1 and adapted to engage with said wheel socket, and means, substantially as described, for supporting said reel body in a rotatable and sliding position adjacent to a line of horizontal fence wires, substantially as and for the purpose specified.

No. 59,301. Liquid Receptacle. (Réceptacle à liquides.)

Joseph Ledue, St. Hyacinthe, Quebec, Canada, 16th March, 1898; 6 years. (Filed 12th February, 1898.)

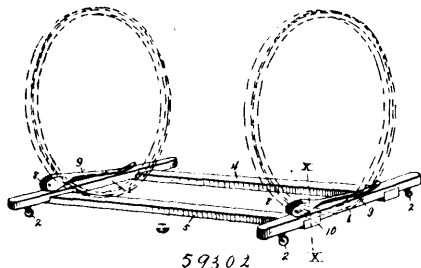
Claim.—A liquid receptacle provided with a bottom having its central portion concave, the portion between the lower edge of the



sides and said central portion being provided with annular corrugations, substantially as and for the purposes set forth.

No. 59,302. Vehicle Turning Truck.

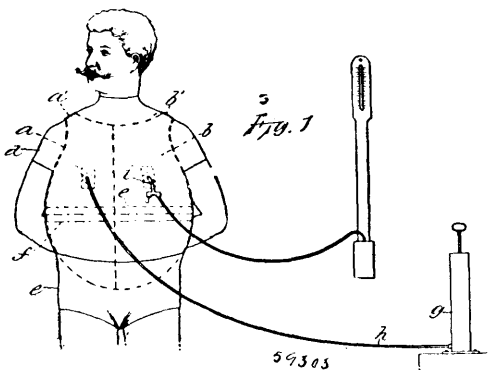
(Plate-forme tournante pour voitures.)



Louis P. Pomeroy, Yarmouthville, Maine, U.S.A., 16th March, 1898; 6 years. (Filed 28th February, 1898.)

Claim.—1st. In a device of the character set forth, the combination of a pair of end bars mounted on casters, and side bars connecting the same, one of the latter being adjustable, substantially as and for the purposes specified. 2nd. In a device of the character set forth, the combination of a pair of end bars mounted on casters and having openings therein near one end, a stationary side bar and a movable side bar having posts extending upwardly through said openings with apertured heads, and clamping-levers engaging the apertured heads of said posts, substantially as and for the purposes specified.

No. 59,303. Depurator. (Epurateur.)



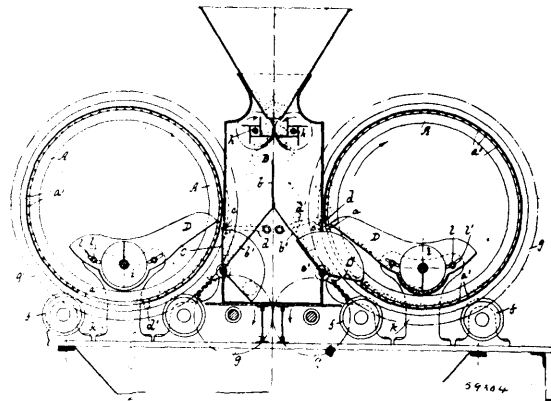
Thomas N. McLean, Elizabeth, New Jersey, and Calvin B. McLean, Stamford, Connecticut, both in the U.S.A., 16th March, 1898; 6 years. (Filed 5th February, 1898.)

Claim.—In combination, the frame in longitudinal partible sections adapted to form the frame-work of a chamber substantially encompassing the chest and abdomen of the human body, the flexible overlapping cover adapted to form an air tight connection with the neck and arms, another flexible overlapping cover adapted to form

an air tight connection with the legs separately, and means for partially removing atmospheric pressure from said chamber, all substantially as described and for the purposes set forth.

No. 59,304. Grain Sorting Machine.

(Machine à separer le grain.)

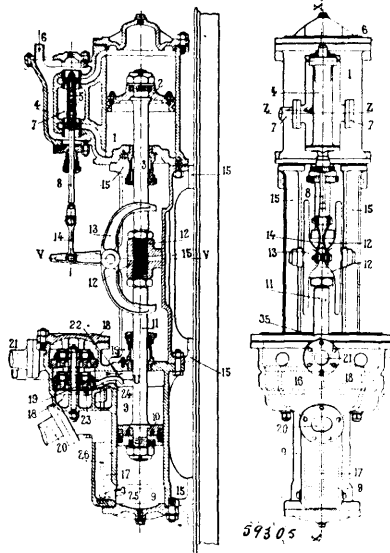


Johann Mayer, Cologne on the Rhine, Prussia, 16th March, 1898; 6 years. (Filed 1st March, 1898.)

Claim.—1st. In a machine for sorting grain, the combination with a horizontal rotary sorting-cylinder having a longitudinal opening in its periphery, of a pivoted flap located at the end of a supply-channel and adapted to open inwards into said flap, the opening being adapted to receive the grain to be sorted when in said position, and to let the sorted grain pass out of the cylinder when at the lower side of the latter, substantially as described. 2nd. In a machine for sorting grain, the combination with a horizontal rotary sorting-cylinder having a longitudinal opening in its periphery, of a pivoted flap located at the end of a supply-channel and adapted to open inwards into said cylinder through said opening when the latter arrives at said flap, a projection located at the advancing edge of the opening, a catch adapted to hold said flap closed and to be operated by said projection so as then to open the flap, the latter being adapted to be closed by the succeeding edge of the said opening, substantially as described. 3rd. In a machine for sorting grain, the combination with a horizontal rotary sorting-cylinder having a longitudinal opening in its periphery and being open at its ends, of a pivoted flap located at the end of a supply-channel and adapted to open inwards into said cylinder through said longitudinal opening, and for a receiver for the separated broken grain and other foreign bodies, said receiver extending through the cylinder and being externally attached to fixed supports by means of slotted bolt-holes and bolts so as to be capable of adjustment during the working, and means for transporting the broken grain and other foreign bodies out of said receiver, substantially as described.

No. 59,305. Pump and Compressor.

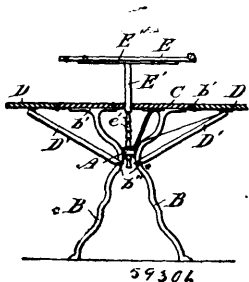
(Pompe et compresseur.)



Louis Marie Gabriel Delaunay, Belleville, 40 Rue de Douai, Paris, 16th March, 1898; 6 years. (Filed 24th February, 1898.)

Claim.—1st. For pumping apparatus and compressors, annular clack valves guided by guides which are external to the valves and integral with the seat, the said clack valves being composed of two pieces, one of which is stationary and forms the seat and guides of the valve and composes the conduits necessary for the inlet and outlet of fluid, and the other of which is movable and constitutes the clack valve proper which moves freely in the said guides and is adapted to exactly stop the section passage, substantially as herein described and represented more particularly in Fig. 13 of the accompanying drawings. 2nd. The combination of the vertical pump or compressor, provided with an annular clack valve or annular clack valves for the inlet and for the outlet and of the kind described and claimed, the characteristic feature of the said combination being the method of grouping the valves in a valve box or valve boxes, in such a manner that the seats of the outlet valves serve as an abutment or guard for the suction valves, substantially as herein described with reference to Figs. 3 to 10 of the accompanying drawings. 3rd. In pumps and compressors, the combination of separate annular externally guided clack valves in which the guides are integral with the seat, substantially as herein described with reference to Figs. 11 to 16 of the accompanying drawings.

No. 59,306. Dining Table. (Table à diner.)

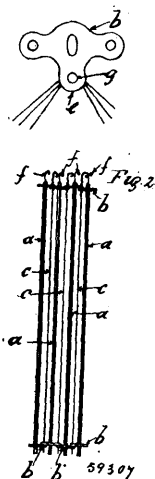


Daniel McKay, Hall's Mills, Ontario, Canada, 17th March, 1898; 6 years. (Filed 4th March, 1896.)

Claim.—1st. In a double-decked table, the combination of a centre block supported by legs and having a central perforation, a top supported by said legs and having a central perforation, an upper top supported by a central stem passing through said perforations and provided with ratchet-teeth, and a spring catch supported on the top of the central block and secured to the lower face of the main top and adapted to engage and support the stem of the upper deck, substantially as set forth. 2nd. In a double-deck table, the combination of a centre-block having a central perforation, and supported by legs connected therewith by tapered dovetails, legs supporting said block and the top, a top supported at the upper end of said legs and having a central perforation, an upper deck provided with a central stem having its lower part ratcheted and passing through the perforations in the top and centre block, a spring catch having a forked end engaging said ratcheted stem and supported on the centre block and having the other end secured to the lower face of the top, and a cord or pull secured to the top and to the forked end of said catch, adapting it for disengaging said catch, substantially as set forth.

No. 59,307. Temporary Binder for Music, etc.

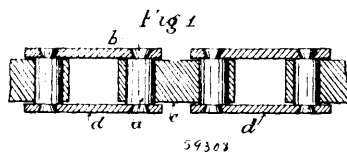
(Relieure temporaire pour musiques, etc.)



Theodore Wright, London, England, 17th March, 1898; 6 years. (Filed 18th October, 1897.)

Claim.—One or more bars or rods, carrying plates or lugs, having holes or apertures for the passage of wires for securing sheets of music or the like to same, and also holes or apertures in plates or lugs upon said bars or rods for the passage of a wire for connecting the bars or rods together, said connecting wires being bent or corrugated at a suitable part for preventing same from slipping out of position, substantially as described.

No. 59,308. Chain. (Chaine.)

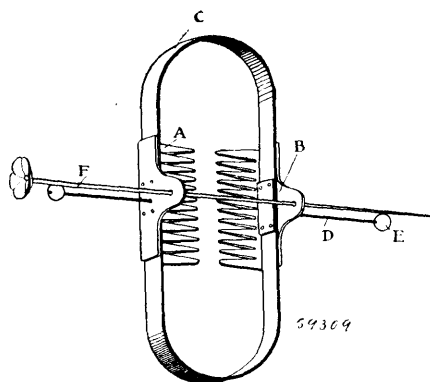


Harry Morrison, 23 Glen Park Road, Forest Gate, Essex, England, 17th March, 1898; 6 years. (Filed 6th December, 1897.)

Claim.—In chains of the class herein described, the employment of burrs or shoulders surrounding apertures upon the links to be rivetted, said burrs or shoulders being caused to engage around the tapered ends or a recess in the ends of the pivot pins so that the application of pressure causes the links and pivot pins to be secured.

No. 59,309. Means of Attaching Headgear.

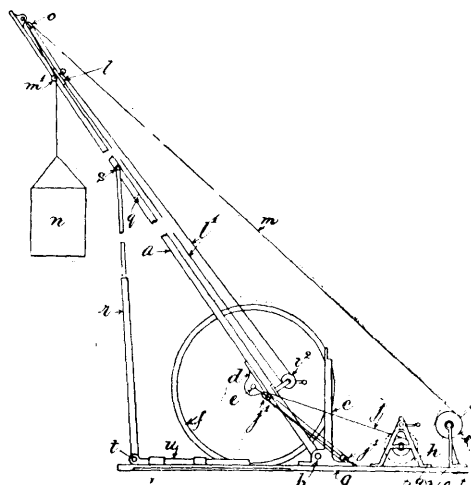
(Attache pour chapeaux.)



Edward Maxwell, Montreal, Quebec, Canada, 17th March, 1898, 6 years. (Filed 27th January, 1898.)

Claim.—As an article of manufacture, a hat fastener, comprising a pair of combs letter A or the like, with shoulders B connected by flexible bands or springs letter C, shafts and attachments letter D and E to operate the combs, and a guide pin or stiffener F, all formed, arranged and operated, substantially as and for the purpose hereinbefore set forth.

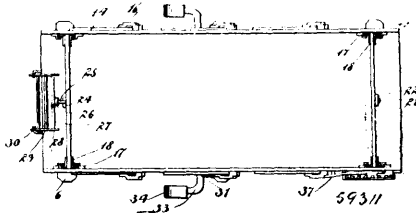
No. 59,310. Fire Escape. (Sauveteur d'incendie.)



David Roche, Ealing, Middlesex, England, 17th March, 1898; 6 years. (Filed 4th February, 1898.)

Claim.—1st. The method of raising or lowering a structure or erection by means of a movable bearing carried upon wheels, said structure or erection being pivoted or hinged to a platform having movable bearing surfaces for the reception of the wheels aforesaid, when required, said structure or erection being provided with a travelling bar or carrier for the purpose of enabling the position of the basket or cage to be regulated. 2nd. The combined construction and arrangement of the various parts, substantially as described and illustrated herein.

No. 59,311. Waggon Bed. (Lit de wagons.)

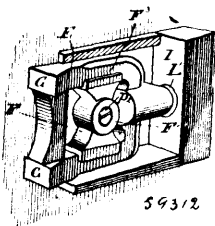


Edward J. Everett Hartsell, Rowland, Alabama, U.S.A., 17th March, 1898; 6 years. (Filed 16th February, 1898.)

Claim.—1st. The combination with the body of a waggon or similar vehicle, of extension sides made removable in an oblique line, substantially as described. 2nd. The combination with the body of a waggon or other vehicle, of extension sides having obliquely disposed standards, and socket pieces secured to the said body and adapted to receive said standards, substantially as described. 3rd. The combination with the body of a waggon or other vehicle, of an extension side, a series of oblique standards secured rigidly to said extension side and having their lower ends extended below the bottom edge of the extension side, and keepers or socket pieces secured to said body and adapted to receive the lower ends of the standards, substantially as described. 4th. The combination with the body of a waggon or other vehicle, of extension sides provided with oblique standards adapted to be received in socket pieces on the body whereby the extension sides are caused to move in oblique planes, and removable end boards slidingly fitted between the extension sides and movable in vertical lines, substantially as described. 5th. The combination with the body of a waggon or other vehicle, of extension sides provided with oblique standards adapted to enter socket pieces on the body whereby the sides are made movable in oblique lines, and extension end boards slidingly mounted in ways between the extension sides and movable in a different direction from the direction in which the sides move, substantially as described. 6th. The combination with the body of a waggon or other vehicle, of extension sides mounted thereon, extension front and rear boards slidingly engaging the sides and serving to lock the same against displacement, and standards secured to the end boards and removably fitted in openings in the bottom of the body, said standards having provision beneath the bottom of the body for preventing their displacement, substantially as described.

No. 59,312. Bedstead Lock and Slat Fastener.

(*Serrure et attache de planches de lit.*)



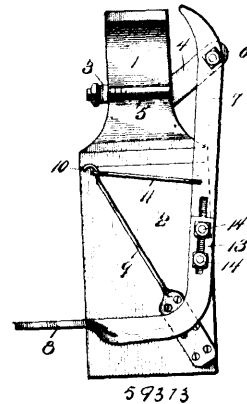
George H. Clime, Dickson, Tennessee, U.S.A., 17th March, 1898; 6 years. (Filed 19th February, 1898.)

Claim.—1st. In a bedstead lock, the combination with a frame attached to the side rails of the bedstead and provided with enlargements at the rear end, of the socket or casting-plate, attached to the head or foot-board and adapted for engagement with the enlarged portions of the frame or casting attached to the side rails, substantially as described. 2nd. In a bedstead lock, the combination with a rectangular-shaped casting attached to the side rail, of the bedstead having enlargements at the outer ends, of the socket plate or casting attached to the head or foot-board, said socket plate or casting having keyhole-shaped openings adapted to admit and engage the enlarge ends of the rectangular-shaped frame or casting, substantially as shown and described. 3rd. In a bedstead locking device, the combination with a rectangular-shaped casting attached to the side rail of the bedstead, of the socket-plate or casting attached to the head or foot-board and adapted for engagement with the casting on the side rail, and means for tightening the said casting within the cast-

ing socket or plate, substantially as shown and described. 4th. In a bedstead locking device, the combination with the rectangular-shaped casting having enlarged outer ends, and the inwardly-projecting spindles and means for securing the said casting to the side rails of the bed, of the socket-plate or casting attached to the head or foot-board and adapted for arrangement with the enlarged ends of the rectangular-shaped casting, the block through which the inwardly-projecting spindles passes, and the tightening nut arranged upon the inner end of the said spindles, substantially as shown and described. 5th. In a bedstead locking device, the combination with the socket-plate or casting, of the rectangular-shaped casting provided with enlarged ends, the guide-plates for attaching the said casting to the side rail, the inwardly-projecting spindles and nut, the block and coiled spring, all arranged and adapted to operate, substantially as shown and described. 6th. In a bedstead, the combination with the side rails, of the slats having recessed ends, the staples fastened upon the inner sides of the side rails, and the hooks having the engaging end projecting through the recessed end of the slat and adapted to engage the staples, substantially as shown and described. 7th. In a bedstead locking device, the combination with the socket-plate or casting attached to the head or foot boards, of the casting adjustably attached to the side rails of the bedstead and provided with outwardly-projecting ends adapted to engage the socket-plate or casting, and means for drawing the said casting inwardly, substantially as shown and described.

No. 59,313. Machine for Sharpening Horseshoes.

(*Appareil à aiguiser les fers à cheval*)



James A. Guiles, Hadley, Michigan, U.S.A., 17th March, 1898; 6 years. (Filed 28th February, 1898.)

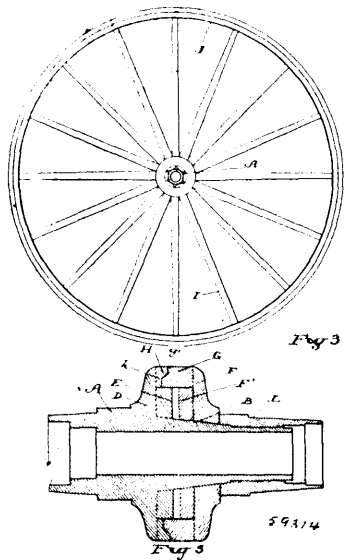
Claim. 1st. An attachment for anvils, comprising a clamp consisting of longitudinal bars and bolts connecting the end portions of the bars and clamping them against the sides of the anvil, one of the bars having an end portion and bent forming an off-standing arm, and a lever fulcrumed to the said arm and adapted to grip the work between its upper end and a side of the anvil, and having its lower end provided with a treadle, substantially as and for the purpose set forth. 2nd. The here-indescribed attachment for anvils, comprising longitudinal bars, and bolts connecting the end portions of the bars and clamping them against the sides of the anvil, one of the bars having an end portion extended and bent to provide an obliquely disposed arm, a lever fulcrumed near its upper end to the said oblique arm, and terminating in a jaw to grip the work between it and the anvil, and having its lower end bent and flattened to provide a treadle, a flat spring to be secured at one end of the anvil block, and a link connecting the free end of the spring with the lever to hold the latter normally out of action, substantially as set forth. 3rd. An attachment for anvils, consisting of a clamp comprising parallel bars having longitudinal slots at one end, bolts connecting the bars, one of the bolts operating in the longitudinal slots thereof and one of the bars having an upwardly extending arm, a lever fulcrumed to said arm and composed of sections having their end portions overlapping and longitudinally slotted, fastenings operating in the slots of the lever sections and adjustably connecting them, a spring and a link connecting the spring with the lever, substantially as set forth.

No. 59,314. Wheel Hub. (Moyen de roue.)

Elijah Misener Miers, Palmerston, Ontario, Canada, 17th March, 1898; 6 years. (Filed 4th March, 1898.)

Claim.—1st. A wheel embracing in its construction a hub, a fixed flange integrally formed with the hub, a frustro conical enlargement on the hub converging from the inner side face of the flange outwards, a series of longitudinal cavities formed in the enlargement, a plurality of expanding wedges connected to the inner face of the flange, and extending radially outwards from the enlargement, a removable flange fitted on the hub, and a series of spoke partitions dividing the space between the flanges into sockets for the spokes

substantially as specified. 2nd. A wheel embracing in its construction a hub, a fixed flange integrally formed with the hub, a frustro-



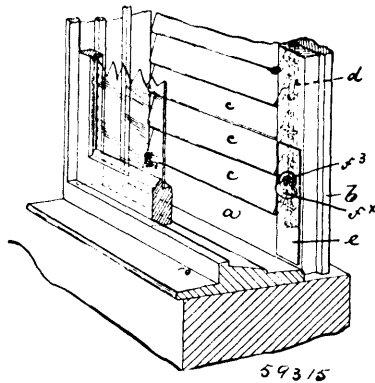
conical enlargement on the hub converging from the inner side face of the flange outwards, a series of longitudinal cavities formed in the enlargement, a plurality of expanding wedges connected to the inner face of the flange, and extending radially outwards from the enlargement, the inner end of each expanding wedge contiguous to its respective raised portion between two concavities, partition members connected to the inner side face of the fixed flange, the inner end of each partition member contiguous to the outer end of its respective expanding wedge, a removable flange, a series of partition members corresponding in number and location with the partition members of the fixed flange, and adapted to interlock therewith, and a nut to lock the removable flange in position when assembled, substantially as specified. 3rd. A wheel embracing in its construction a hub, a fixed flange on the hub, a removable flange opposed to the fixed flange, and an expanding wedge or wedges to force the spokes outwardly against the fellow when the hub is being fitted into position, substantially as specified. 4th. A wheel embracing in its construction a hub, a fixed flange on the hub, a removable flange opposed to the fixed flange, a wedge-shaped enlargement connected to the hub to expand the spokes against the fellow when the hub is being fitted into place, and a lock-nut to hold the removable flange, substantially as specified. 5th. A wheel embracing in its construction a hub, a fixed flange fitted to the hub, a frustro-conical enlargement on the hub converging from the inner side face of the flange outwards, a removable flange opposed to the fixed flange, a plurality of spokes held between the flanges and expanded outwards by the frustro-conical enlargement, when the hub is being fitted into place, and a lock-nut to hold the removable flange into position, substantially as specified. 6th. A wheel embracing in its construction a hub, a fixed flange fitted to the hub, a frustro-conical enlargement on the hub converging from the inner side face of the flange outwards, a removable flange opposed to the fixed flange, a plurality of spokes held between the flanges and expanded outwards by the frustro-conical enlargement when the hub is being fitted into place, a lock-nut to hold the removable flange into position, and a plurality of expanding wedges connected to the inner side face of one or both of the flanges extending radially outwards from the enlargement, adapted to be interposed between the spoke ends, substantially as specified.

No. 59,315. Blind Slat Operating and Locking Device.
(Appareil pour actionner et fermer les lames de persiennes.)

George H. Hamalian, Paterson, New Jersey, U.S.A., 17th March, 1898; 6 years. (Filed 4th March, 1898.)

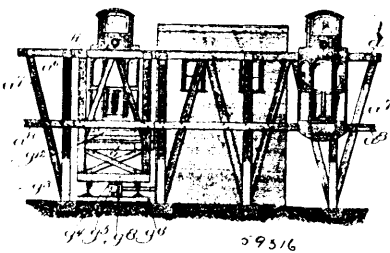
Claim.—1st. In a shutter, the combination with the frame and slats pivotally arranged therein, of a sliding rod loosely connected with said slats and provided at its lower end with an outwardly-projecting portion bent at right angles to said rod, a disc revolvably mounted on said frame, a pin or pivot arranged on said disc, a link connected at one end to the projecting portion of the rod and at its other end to the said pin or pivot on the disc, and an axle for said disc, said axle lying between the pivoted connections at the ends of the link, when said disc has been rotated to raise said rod to close the slats, all said parts, substantially as and for the purpose described. 2nd. In a shutter, the combination with the frame and the slats pivotally arranged therein, of a sliding rod loosely connected with said slats and provided at its lower end with an

outwardly projecting portion bent at right angles to said rod, a disc revolvably mounted on said frame, a pin or pivot arranged on said



disc, a link pivotally connected at one end to the projecting portion of the rod and at its other end to the said pin or pivot on the disc, an axle for said disc, said axle lying between the pivoted connections at the ends of the link, when said disc has been rotated to raise said rod to close the slats, and a flat spring carried by the frame and in frictional contact with the disc, substantially as and for the purpose described. 3rd. In a shutter, the combination with the frame and the slats pivotally arranged therein, of a sliding rod loosely connected with said slats and provided with an outwardly projecting portion bent at right-angles to said rod, a disc revolvably mounted on said frame, a pin or pivot arranged on said disc, an axle for said disc, said axle lying between the pivoted connections at the ends of the link, when said disc has been rotated to raise said rod to close the slats, a flat spring carried by the frame and in frictional contact with said disc, and a screw engaging the flat spring for regulating the tension of the same, substantially as described. 4th. The combination with the frame and the slats of a shutter, one of the side rails of the frame being provided with a vertical central channel, of a rod slidingly arranged in said channel, and loosely connected with said slats and having its lower portion bent outward at right-angles to said rod, a plate on said side rail, a disc revolvably mounted on said plate, a pin or pivot arranged on said disc, a link pivotally connected at one end to the projecting portion of the sliding rod and at its other end to the said pin or pivot on the disc, and an axle for the disc and projecting through the plate, said axle lying between the pivoted connections at the ends of the link, when said disc has been rotated to raise said rod to close the slats, substantially as described. 5th. The combination with the frame and the slats of a shutter, one of the side rails of the frame being provided with a vertical central channel, of a rod slidingly arranged in said channel and loosely connected with said slats and having its lower portion bent outward at right-angles to said rod, a plate mounted on said side rail, a disc revolvably mounted on said plate, a pin or pivot arranged on said disc, a link pivotally connected at one end to the projecting portion of the rod and at its other end to the said pin or pivot on the disc, an axle for the disc and projecting through the plate, said axle lying between the pivoted connections at the ends of the link, when said disc has been rotated to raise said rod to close the slats, and a flat spring carried by said plate and in frictional contact with the disc, substantially as described.

No. 59,316. Elevated Railway. (Chemin de fer aérien.)



Hans Knudsen, Boston, Massachusetts, U.S.A., 17th March, 1898; 6 years. (Filed 4th March, 1898.)

Claim.—1st. The combination with a car provided with a motor and a supporting wheel having projecting teeth along its periphery, of a rail for said car having openings extending completely through it and corresponding to said teeth, flanges along the sides of the rail to laterally support the wheel, and an elevated structure to support the said rail, substantially as described. 2nd. A railway system comprising an elevated rail having upwardly projecting flanges along the sides thereof, and cross members separated by openings along

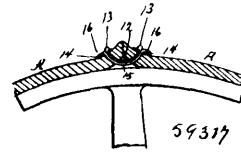
the bottom thereof, combined with a car having a drive-wheel which has a bearing in the upper part of said car and is provided with teeth corresponding to the openings in said rail, and a car body having two compartments below the bearing for said wheel, one at each side of the structure which supports the rail, whereby the floor and seats of said car will remain level regardless of the angle of the track, substantially as described. 3rd. A railway system, comprising an elevated rail having upwardly projecting flanges along the sides thereof and cross members separated by openings along the bottom thereof, combined with a car having a drive-wheel which has a bearing in the upper part of said car and is provided with teeth corresponding to the openings in said rail, a car body having two compartments below the bearing for said wheel, one at each side of the structure which supports the rail, and a plough or clearing device pivotally connected with the car and adapted to slide along the rail in advance of said driving-wheel, substantially as described. 4th. A railway system comprising an elevated rail having upwardly projecting flanges along the sides thereof and cross members separated by openings along the bottom thereof, combined with a car having a drive-wheel which has a bearing in the upper part of said car and is provided with teeth corresponding to the openings in said rail, a car body having two compartments below the bearing for said wheel, one at each side of the structure which supports the rail, a plough or clearing device pivotally connected with the car and adapted to slide along the rail in advance of said driving-wheel, wheels or rollers mounted on bearings in the car one at each side of the rail-supporting structure and adapted to co-operate with bearing surfaces or tracks along the same, and means for connecting the supports for said bearings with said plough, said supports being rotatably mounted, substantially as and for the purpose described. 5th. A railway car adapted to travel on a rail supported on an elevated structure, said car comprising two compartments one on each side of said structure, a drive-wheel having a bearing in the car above said rail, wheels or rollers having bearings mounted in rotatable supports in said car and adapted to bear against rails or surface along the side of said elevated structure to prevent the car from tipping, a feeder pivotally secured to the car and adapted to travel along the surface, of the main rail, and means for connecting said rotatable supports with said feeder, substantially as and for the purpose described. 6th. A railway system, comprising an elevated rail having upwardly projecting flanges along the sides thereof and cross members below said flanges, combined with a car having a drive-wheel provided with teeth corresponding to the said cross members, anti-friction balls arranged in annular channels, one at each side of said wheel to bear against the said flanges, and means for retaining the said balls in said channels and separate from each other, substantially as described. 7th. In an elevated railway system, the combination with a rail mounted on an elevated structure, of a laterally movable track section having two parallel rails adapted to be moved into and out of alignment with said main rail, whereby a car which has travelled from the main line on to one of said track sections can be moved aside and the track completed by the other track section, substantially as described. 8th. In an elevated railway, the combination with the main elevated rail of a pair of parallel track sections mounted on a travelling staging, which is adapted to be moved laterally with relation to the main line of track to move said sections into or out of alignment with said main track, platforms on said staging, one on each side of a track section, and a landing into alignment with which said platforms are adapted to be moved when one track section is moved out of alignment therewith, substantially as described. 9th. In an elevated railway system, the combination with a single rail mounted on an elevated structure, of a car provided with a supporting wheel to travel on said rail, said supporting wheel being mounted above the centre of gravity of the car, which has two compartments below said wheel, one at each side of the elevated structure, and a turn out comprising a pair of parallel track sections mounted on a travelling staging movable in a direction transverse to that of the main track, whereby a car which has moved on to one of said sections from the main track can be moved to one side and the track completed by the other track section so that another car can pass, substantially as described. 10th. In an elevated railway system, the combination with the main track *a*, of the laterally movable track sections *A* and *A*², the staging *g* upon which said track sections are supported, the track for said staging, means for laterally moving said staging, the platform *g*¹ upon said staging, and a landing, adjacent to which said platforms are adapted to be moved when one of said track sections is moved away from the main track and the other section is brought into alignment therewith, substantially as described.

No. 59,317. Belt Fastener. (Attache de courroie.)

Jonathan Hill, Jersey City, New Jersey, U.S.A., 17th March, 1898; 6 years. (Filed 7th March, 1898.)

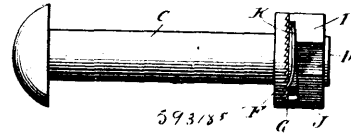
Claim.—1st. A belt-fastener, consisting of a locking-bar terminating in heads which extend beyond one of the side faces of the bar, washers adapted to be passed over the heads of the locking-bar, and a key adapted to be passed through the washers and in engagement with the straight side face of the locking-bar, as and for the purpose specified. 2nd. The combination, with the ends of a belt, the said end portions of the belt being provided with a lining openings, of locking-bars passed through registering openings in the belt, the said locking-bars terminating in heads at their ends and the heads

extending beyond the outer side faces of the locking-bars, the inner side faces being substantially straight, washers passed over the heads



of the locking-bars to an engagement with the belt, and keys passed through the washers to an engagement with the under or straight surfaces of the locking-bars, the ends of said keys being bent upon the said washers, as and for the purpose specified. 3rd. The combination with a belt having its ends bevelled and provided with registering openings at its end portions, of a locking-bar passed through registering openings, the said locking-bars extending beyond the outer faces of the belt, terminating in heads at their extremities, which extend beyond the plane of the upper side faces of the locking-bar, the bottom of the locking-bars being substantially straight, washers passed over the ends of the locking-bars to a position between the heads and the outer sides of the belt, and keys passed through registering openings in the belt to an engagement with the under or straight surfaces of the locking-bars, the extremities of the keys being forced to an engagement with the washers, and for the purpose set forth.

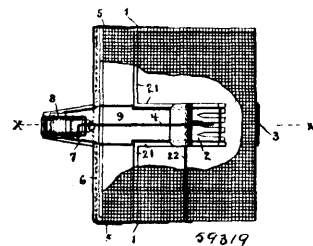
No. 59,318. Nut-Lock. (Arrête-écrou.)



John Wesley Brown, McRae, Georgia, U.S.A., 17th March, 1898; 6 years. (Filed 19th February, 1898.)

Claim. 1st. The combination with a rail, the plates secured to the sides thereof, a bolt passing through said rail and plates, said bolt being provided with the outer, screw-threaded end and a shoulder formed directly in the rear thereof, a washer adapted to be fitted upon said shoulder, the same carrying the teeth or corrugations on its outer face, and a nut having a locking pawl secured to the under side thereof adapted to be locked within and engage the teeth of the washer of the bolt, substantially as set forth. 2nd. A nut lock, consisting of a bolt having the shoulder formed on the front portion thereof, as described, and provided with the screw-threaded end, a washer, adapted to embrace said shoulder portion, provided with the teeth or corrugations, and a nut having a locking pawl, the free end thereof being adapted to engage the teeth or corrugations of the washer, as described. 3rd. A nut lock, comprising a bolt having the beaded end and the approximately hexagonal-shaped shoulder formed on the front portion thereof, said bolt being provided with the front screw-threaded portion, a washer adapted to be fitted upon said shoulder portion of the bolt, the same being provided with the teeth or corrugations on the front face thereof, and a nut having its inner face recessed or cut-away, as shown, carrying a pawl, the free end of which is adapted to engage the teeth or corrugations of the washer, for the purpose described.

No. 59,319. Animal Trap. (Piège.)

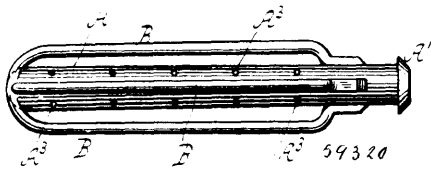


Fred Cole, Kankakee, Illinois, U.S.A., 17th March, 1898; 6 years. (Filed 18th February, 1898.)

Claim.—1st. In an animal trap, the combination of a frame therefor forming a trap-compartment, a gate depending from a pivotal support, and having an arm secured thereto adapted to engage a latch so as to hold said gate in an open position, the latch (4) adapted to engage said arm, the tilting lever (5) adapted to tip the latch so as to release said arm, a tilting platform (6) in the compartment for actuating the lever, and an exit-gate, depending from a pivotal support and having an arm adapted to move the other arm into

re-engagement with the latch when said exit-gate is opened. 2nd. In an animal-trap, the combination of a frame therefor forming a trap-compartment, a gate depending from a pivotal support and having an arm 7, secured thereto, the latch 12 adapted to engage the arm 7, so as to hold said gate in an open position, the tilting lever 11, a tilting platform in the compartment for actuating the lever, the member 16 adapted to engage the arm 7 so as to lock said gate in a closed position, and an exit-gate having an arm adapted to release the arm 7 from the member 16, and to move same into re-engagement with the latch when said exit-gate is opened. 3rd. In an animal-trap, the combination of a frame therefor forming a trap-compartment, a gate depending from a pivotal support, and having an arm 7 secured thereto, a latch adapted to engage the arm 7 so as to hold said gate in an open position, a tilting platform in said compartment adapted to release the arm 7 from the latch, a member 16 adapted to engage the arm 7 so as to lock said gate in a closed position, and an exit-gate having an arm adapted to release the arm 7 from the member 16, and to move same into re-engagement with the latch when said exit-gate is opened.

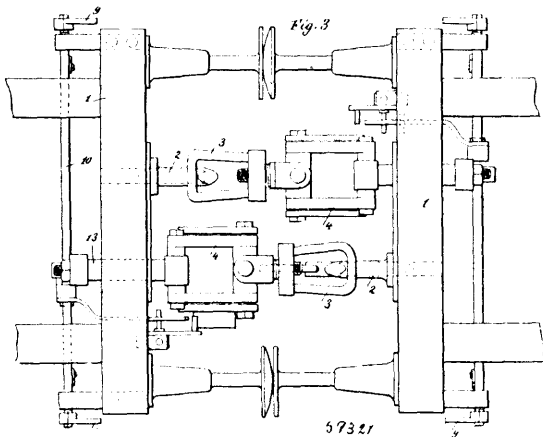
No. 58,320. Syringe Nozzle. (Lance de seringue.)



Henry Hudson Bennett, New York, State of New York, U.S.A., 17th March, 1898; 6 years. (Filed 15th February, 1898.)

Claim.—A nozzle for a syringe, consisting of a tube open at one end and closed at the other end and gradually expanding in size from its open to its closed end, said closed end conforming in section to the arc of a circle, side ribs rigidly attached to the closed end of said tube and projecting a short distance outward therefrom as an extension of the arc forming the end of the tube, and then parallel to each other longitudinally of the tube to near the open end thereof, and then inward to the tube, to which the ends are rigidly connected, and suitable orifices in the end of the tube and the sides thereof between the ribs, substantially as described.

No. 59,321. Car Coupler. (Attelage de chars.)

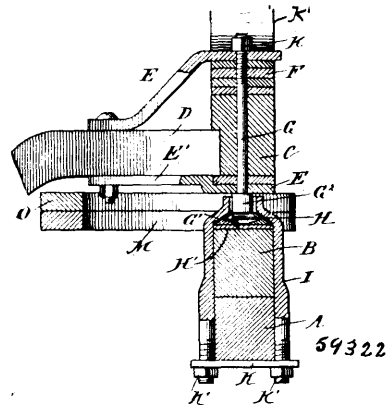


Carl Schulze, Werdan and Johann Wilhelm, Chemitz, both in Germany, 17th March, 1898; 6 years. (Filed 24th February, 1898.)

Claim.—1st. A side coupling characterized by the arrangement in a corresponding manner at each end of the car, of an eye 3 capable of being turned up, a draw hook 2 and an impact bar 8, the arrangement being such that when two cars are pushed together, the impact bar 8 striking on an impact stirrup 6 of the turned up eye 3, throws the latter over the draw hook 2. 2nd. A side coupling according to claim 1, characterized by a draw bar 13 which extends through the buffer beam 1 and which can be drawn back by the turning over of a lever 9 provided at the side of the car, in such a manner that a cam 11 connected eccentrically with a shaft 10 of the lever 9 draws back the guide piece 12 which is connected to the draw bar 13. 3rd. A side coupling according to claim 1 characterized by a double-lever 15 which is pivoted to the buffer beam 1, and which when the lever 9 is turned over, strikes against an impact fillet 17 of the impact stirrup 6 of the eye, and thereby raises the latter out of the draw hook 2. 4th. In a side coupling according to claim 1, arrangement of a draw lever 19 said lever serving to operate the double-lever 15 that is employed for uncoupling on the shaft 10, of the lever 9 that serves to tighten up the coupling the arrangement being such that the impact of the double-lever 15 takes place after the slacking of

the coupling. 5th. A new or improved coupling for railway and like vehicles constructed, arranged and adapted to operate, substantially hereinbefore described and shown.

No. 59,322. Car Coupler. (Attelage de chars.)



Jerry Crowley, Cokeley's, West Virginia, U.S.A., 17th March, 1898; 6 years. (Filed 28th February, 1898.)

Claim.—1st. The combination with the front axle and upper bolster of a waggon, of a coupling, consisting of a king bolt projected through the upper bolster and socketed rotatably in a recess formed in a central clip embracing the axle and lower bolster, substantially as herein shown and set forth. 2nd. The combination with the forward gear of a waggon, of a king bolt projected through and secured within the upper bolster, said bolt provided with an enlarged circular convex and adapted to be loosely socketed within a recess formed in the upper surface of the central clip, and a bearing plate secured beneath said circular head, substantially as herein shown and set forth. 3rd. The herein described improved vehicle coupling, consisting of a king bolt provided with a screw-threaded upper end and a nut therefor, a clip adapted to centrally secure the lower bolster to the axle, said clip being in its upper part provided with a recess adapted to loosely retain the large convex head of said king bolt, and a bearing plate secured within said clip beneath said bolt head, substantially as herein shown and described. 4th. An improved waggon coupling, consisting of a king bolt adapted to be secured to the upper bolster, and having a circular convex head adapted to be pivoted within a recess formed in the central clip embracing the axle and fixed bolster, all substantially as herein shown and set forth. 5th. An improved vehicle coupling, consisting of a king bolt having its upper end screw-threaded and provided with a suitable nut, and its lower end formed into a circular convex head, and a central clip embracing the lower bolster and axle, said clip provided with a recess adapted to loosely retain said head, and bearing plate therefor, all substantially as herein shown and described. 6th. A king bolt formed as herein shown, having a rounded convex head adapted to be rotatably socketed in a recess provided in a central clip embracing the fixed bolster and axle of a vehicle, a bearing plate secured beneath said head, and means for securing the upper bolster and springs upon the upper portion of said bolt, all substantially as herein shown and set forth. 7th. The combination in a vehicle coupling, of a king bolt G provided with a convex G', adapted to be rotatably retained within a recess H formed in the surface of a clip I embracing the axle and lower bolster, and a bearing plate H' adapted to be interposed beneath said head G', all substantially as and for the purpose herein shown and set forth.

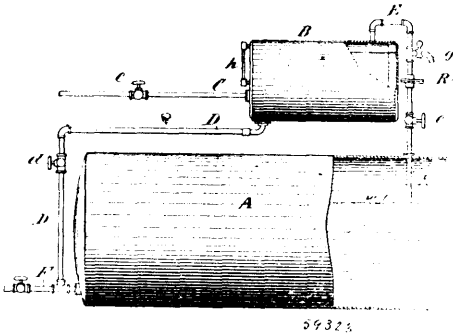
No. 59,323. Steam Boiler Feeder.

(Alimentateur de chaudière à vapeur.)

John Kirkwood, Lenox, Massachusetts, U.S.A., 17th March, 1898; 6 years. (Filed 3rd March, 1898.)

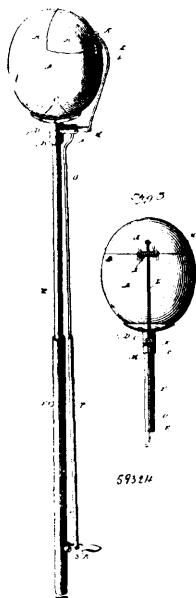
Claim.—1st. The combination with a steam-boiler and an elevated steam-tight supply-tank having an inlet for water, of an open, unobstructed pipe extending from the lower part of said tank to the lower part of the boiler through which the water is free to flow in both directions, and a normally open pipe, with an unobstructed passage, extending from the upper part of said tank down vertically into the boiler, terminating at about the normal water-level therein, through which pipe a gaseous fluid is free to flow in either direction, said pipe having in it, at some point, a contraction of the passage therethrough which will permit the flow of steam but not of water, substantially as and for the purpose set forth. 2nd. The combination with a steam-boiler and an elevated steam-tight supply-tank having an inlet for water, of an open, unobstructed pipe extending from the lower part of said tank to the lower part of the boiler through which the water is free to flow in both directions, a normally open pipe E, with an unobstructed passage extending from the upper

part of said tank vertically into the boiler and terminating at about the normal water-level therein, through which pipe a gaseous fluid



is free to flow in either direction and an adjustable valve in said pipe adapted to regulate a contraction of the passage in the pipe, whereby said passage will permit the flow of steam but not water, substantially as set forth. 3rd. The combination with a steam-boiler and an elevated steam-tight supply-tank having an inlet for water, of an open, unobstructed pipe extending from the lower part of said tank to the lower part of the boiler through which the water is free to flow in both directions, a normally open pipe E, with an obstructed passage through it extending from the upper part of said tank down vertically into the boiler and terminating at about the normal level of the water therein, through which pipe a gaseous fluid is free to flow in either direction, said pipe having in it a contraction of the passage therethrough for the regulation of the flow of fluid, and a pet-cock in said pipe E above said contraction permitting the flow of steam but not of water, substantially as and for the purposes set forth. 4th. In an automatic boiler-feeder of the character described, the combination with the boiler A, tank B, water-supply pipe D, and steam-pipe E, terminating at its lower end in the boiler at about the normal water-level, of the regulating-valve R, having the contracted passage or port r^2 in its body, the slide r , provided with the port r^1 , arranged to register more or less with the port r^2 , and means for adjusting said slide with its port r^1 relatively to the port r^2 , whereby the passage is contracted so as to permit the flow of steam but not water, substantially as and for the purpose set forth. 5th. In an automatic boiler-feeder of the character described, the combination with the boiler A, tank B, water-supply pipe D, and steam-pipe E, terminating at the lower end in the boiler at about the normal water-level, of the regulating-valve R having the contracted passage or port r^2 in its body, the slide r provided with the port r^1 arranged to register more or less with the port r^2 , and the eccentric r^3 , attached to said slide for adjusting the same with its port r^1 relatively to the port r^2 , said valve serving to contract the passage in the pipe E so as to allow steam but not water to pass, substantially as and for the purpose set forth.

No. 59,324. Fruit Picker. (Jaffet.)

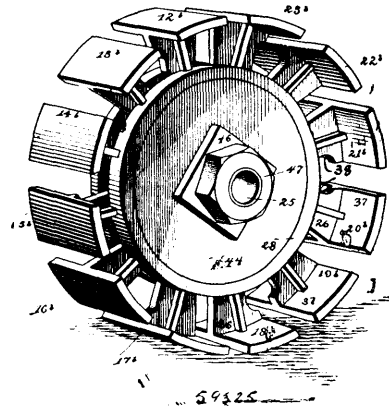


Samuel A. Harrison, Anutt, Missouri, U.S.A., 17th March, 1898; 6 years. (Filed 19th February, 1898.)

Claim.—1st. A fruit picker, comprising a receptacle mounted on the end of a handle, having a door near the upper end of the

receptacle, and means extending to the lower end of the handle whereby the door may be opened, substantially as described. 2nd. A fruit picker, comprising a receptacle mounted on the end of a handle, having a door near the upper end of the receptacle, held normally closed by a spring hinge and having its front edge sharpened, and means extending to the lower end of the handle whereby the door may be opened, substantially as described. 3rd. The combination in a fruit picker, of a receptacle mounted on the end of an adjustable handle, a door hinged to the receptacle, and means for opening the door, adjustable with relation to the length of the handle, whereby the door may be opened by the operator, standing upon the ground, substantially as described. 4th. The combination of the fruit receptacle, the vertically-depending socket secured thereto, provided with laterally-extending lugs, the handle secured in said socket, the door hinged to said socket and held normally closed, the lever pivoted in the socket lugs, the bar connecting the outer end of the lever with the door, and the operating handle pivotally secured to and depending from the inner end of the lever, substantially parallel to the main handle, as set forth. 5th. The combination of the fruit receptacle, the vertically-depending socket secured thereto, having laterally-extending lugs, the hollow handle F, the handle E, slidable therein and secured at its upper end in said socket, means for securing it in position, the door to the receptacle, normally held closed and provided with a sharpened edge, the lever pivoted in the socket lugs, the rod connecting the outer end of the lever with the door, a hand lever pivoted to the hollow section of the main handle, a pipe pivotally secured to the hand lever, substantially parallel to the main handle, a rod pivotally secured to the inner end of the lever and slidably adjustable in said pipe, and means for securing it, substantially as described.

No. 59,325. Pulley. (Poulie.)

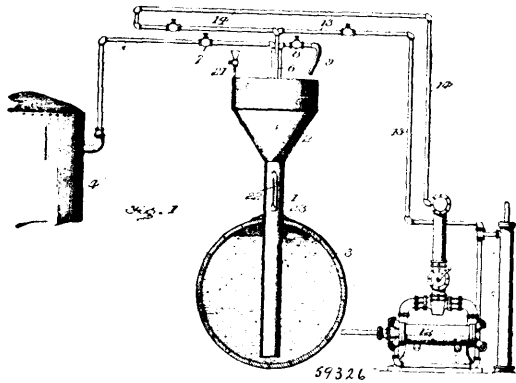


Theodor Kirchhoff, Milwaukee, Wisconsin, U.S.A., 17th March, 1898; 6 years. (Filed 19th February, 1898.)

Claim.—1st. An expansible pulley, comprising a disc fast upon a hub or sleeve and provided with a series of equidistant radial grooves, a similar disc mounted loosely on the hub and provided with a registering system of grooves, and a series of sectors of the rim, each carrying an annular inward extension consisting of a web lying between the two discs, a cross-web or ribs lying in opposite radial grooves, one side thereof being provided with a lug projecting through the groove of the movable disc, and a disc loosely mounted on the shaft and having a spiral groove in its inner face to engage said lugs, all arranged and combined substantially as set forth. 2nd. An expansible pulley, comprising a disc fast upon the hub, provided with a series of radial grooves in its inner face, a disc mounted loosely on the hub and having a corresponding series of grooves extending through it, a series of rim sectors provided with ribs to enter said grooves, and a lug to project through each groove of the movable disc, and an adjusting disc lying against the movable disc and having a spiral groove in its inner face to receive said lugs, all arranged and combined substantially as set forth. 3rd. An expansible pulley, comprising a disc fast upon the hub, provided with a series of radial grooves in its inner face, a disc loosely mounted on the hub, and having a corresponding series of grooves extending through it, a series of spacing blocks on its inner face, between said grooves, a series of rim sectors provided with ribs to enter said grooves, and a lug to project through each groove of the movable disc, and an adjusting disc, lying against the movable disc and having a spiral groove in its inner face to receive said lugs, all arranged and combined substantially as described. 4th. An expansible pulley, comprising a disc fast upon the hub, provided with a series of radial grooves in its inner face, a disc loosely mounted on the hub, and having a corresponding series of grooves extending through it, a series of spacing blocks on its inner face, between said grooves, a series of rim sectors provided with ribs to lie between the discs and fit snugly around said spacing blocks, and ribs at right angles thereto to enter said grooves, and a lug to pro-

ject through each groove of the movable disc, and an adjusting disc, lying against the movable disc and having a spiral groove in its inner face to receive said lugs, all arranged and combined substantially as described.

No. 59,326. Whiskey Aging Method and Apparatus.
(Méthode et appareil pour vieillir le whiskey.)



David J. Etly, Louisville, Kentucky, U.S.A., 18th March, 1898; 6 years. (Filed 5th August, 1897.)

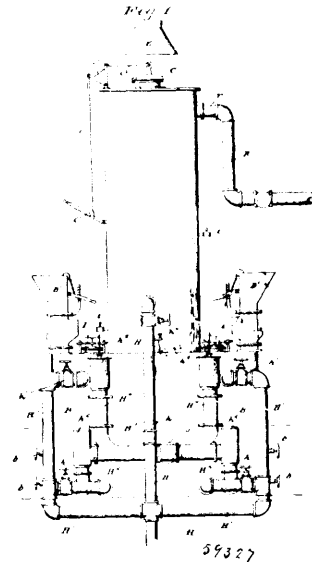
Claim.—1st. The process herein described of aging or ripening liquor, while in an air-tight receptacle, consisting in subjecting the same to a high temperature to color it and then subjecting it to a temperature at or below the freezing point of water to remove the rawness therefrom, substantially as described. 2nd. The process herein described of aging liquor, consisting in successively raising and lowering the temperature of the liquor under treatment to about 145 degrees and 32 degrees Fahrenheit respectively, while said liquor is contained in an air-tight charred oak receptacle, substantially as described. 3rd. The process herein described of aging liquor, consisting in raising to a high degree the temperature of a liquid column located within the receptacle containing the liquor to be treated and in lowering the temperature of said column sufficiently to cause it to reduce that of the liquor under treatment to the freezing temperature of water successively, substantially as described. 4th. The process herein described of aging or ripening liquor artificially, consisting in raising to a high degree the temperature of a column of water located within the barrel containing the liquor to be treated, maintaining said temperature for a proper period, shutting off the heating medium, converting said water into brine, and subjecting said brine to the action of a refrigerant gas to reduce the temperature of the liquor under treatment to or below the freezing temperature of water. 5th. The combination with a barrel containing liquor to be aged, of means for successively raising and lowering the temperature of said liquor, said means consisting of a liquid-containing jacket inserted in said barrel, and heating and cooling pipes inserted in said jacket and surrounded by the liquid therein, substantially as shown and described. 6th. The combination with a barrel containing liquor to be aged, of a liquid-containing jacket inserted in said barrel, said jacket having an open top and a closed bottom, and pipes for steam and a refrigerant gas, inserted in said jacket and surrounded by the liquid therein, for successively raising and lowering the temperature of said liquid, substantially as shown and described. 7th. The combination with a barrel containing liquor to be aged, of a tube for containing brine inserted directly in said liquor, pipes to be surrounded by said brine for conveying a refrigerant gas through the same, and means for forcing said gas through said pipes, substantially as shown and described. 8th. The combination with a barrel containing liquor to be aged, of the herein described apparatus for alternately raising and lowering the temperature of said liquor to a high degree and the freezing temperature of water respectively, consisting of the liquid-containing jacket inserted in said barrel and having an open top and a closed bottom, valved heating pipes inserted in said jacket and surrounded by the liquid therein, a source of steam supply with said pipes, valved pipes for a refrigerant gas also extending into said jacket and surrounded by the liquid therein, a compressor connected with the latter pipes for forcing said gas therethrough, and the valved vent-pipe in said jacket, opening at one end in said barrel and at its other end in the atmosphere, substantially as shown and described.

No. 59,327. Gas Generator. (Générateur à gaz.)

Thomas Hennessy, Grand Forks, North Dakota, U.S.A., 18th March, 1898; 6 years. (Filed 22nd November, 1897.)

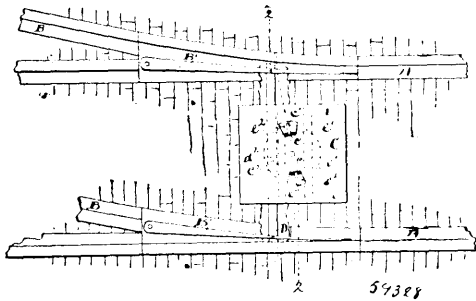
Claim.—1st. In a gas generator and carbureter, the combination with the generators having fire-chambers and charging hoppers therefor, said hoppers having diagonal passages leading to the fire-chambers thereof, of the superheater having an interior checker-brick construction, said generators and superheater formed in the

same structure, an air-heating appliance supported above the superheater for heating and conveying secondary air thereto, and consist-



ing of an annular hood having communication with an annular chamber located in the top of the superheater, air pipes or passages for conveying primary air to the generators, passages for conveying air and the products of combustion from the generator to the superheater, an oil-pipe communicating with a coil vaporizer or atomizer at the upper end of the superheater, a water-gas pipe leading from the generators to the upper end of the superheater, and a connection between said oil pipe and water gas pipe, substantially as set forth. 2nd. In a gas generator and carbureter, the combination the generators and superheater, of a valve at the upper end of the superheater, an air-heating hood over the superheater, having communication with a heating-hood in the top of the superheater, a coiled vaporizer or atomizer disposed in the upper end of the superheater, an oil-pipe leading to said vaporizer, a water-gas pipe connected with the oil-pipe, a steam-pipe also connected with oil-pipe, and valves for regulating said pipes, by means of which either steam or water-gas may be employed in carrying the oil into the superheater. 3rd. In a gas generator and carbureter, the combination with the superheater, of the air-heating appliance at the upper end thereof consisting of a hollow-walled hood supported above the superheater and an annular chamber supported on the superheater and having alternate division-plates, together with the pipe connecting the hood and the said chamber, substantially as described. 4th. In a gas generator and carbureter, the combination of the generators, the intermediate superheater, the tubular grates for the generators, the charging-hoppers at the upper end of the generators, having valve-bottoms, the valve at the upper end of the superheater, the atomizing and vaporizing pipes below said valves, the air-heating appliance consisting of the hood and the annular chamber and the appropriate air-conveying passages connecting with the generators, the superheater and the upper air-heating appliance, all arranged substantially as described. 5th. In a gas generator and carbureter, the combination with generators and the superheater located between said generators, of the atomizing coil-pipes at the upper end of the superheater, the oil-pipe connected thereto, the air-conveying pipes or passages connecting with the generators, the pipes or passage for heating and conveying secondary air to the superheater and likewise having suitable valves, the steam-conveying pipes which enter the generators and convey steam thereto, which will pass through the fuel, and the hot-air pipe leading from one of the secondary air pipes to the oil-conveying pipe, all arranged to operate, substantially as described. 6th. In a gas generator and carbureter, the combination with the generators and superheater located therebetween, of the gas-conveying pipes leading from the top and bottom of the generators to the superheater, the pipes or passages for conveying primary and secondary air to the superheater, the water-heating pipes forming the grates in the generators, whereby the hot water therein may be used to heat adjoining compartments, the air-heating hood located above the superheater, a pipe connecting the hood to an annular chamber supported on the superheater and having alternate division-plates, all substantially as set forth. 7th. In a gas generator and carbureter, the combination with the generators and superheater, of charging mechanism on said generators, a valve device at the upper end of the superheater, means for operating the apparatus either with an upward or downward draft of air, a heating-hood located above the superheater, a heating chamber in the top of the superheater, connecting pipes putting said hood, heating chamber and superheater, in communication, a vaporizer formed in the upper wall of the superheater, and means for conveying the oil thereto under fluid-pressure, all substantially as set forth.

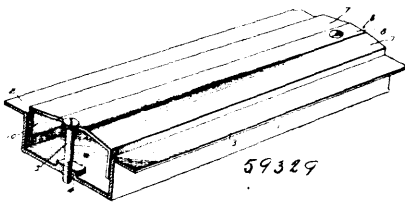
No. 59,328. Switch. (Aiguille de chemin de fer.)



Jonathan E. Young and George Morden, both of Conneaut, Ohio, U.S.A., 18th March, 1898; 6 years. (Filed 7th March, 1898.)

Claim.—In switch operating mechanism, the combination of a switch tongue, a bar D pivotally connected with said tongue and arranged below the same and moving endwise transversely of the track, a disc movable on a vertical axis, a pivotal connection between said disc and bar, springs acting to force said disc up, a cover plate e having slots, and tripping pins secured to said disc and projecting through said slots, substantially as and for the purpose specified.

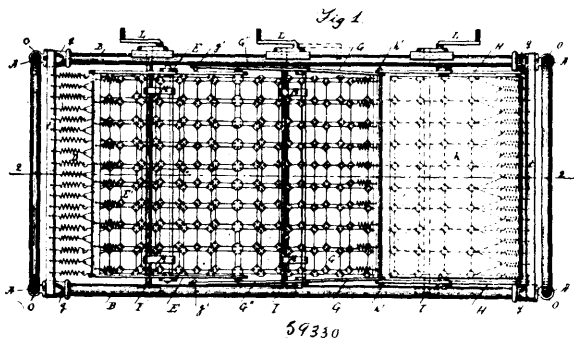
No. 59,329. Threshold. (Seuil de porte.)



George Addison Seeley, Emmetsburg, Iowa, U.S.A., 18th March, 1898; 6 years. (Filed 8th March, 1898.)

Claim.—1st. In a threshold or door-sill of the character set forth, the combination of a box provided with vertical sides and upper horizontal flanges and having a movable section mounted therein, with a closed top and depending sides co-acting with the vertical sides of the said box and adjusting screws connecting said movable section and box and adapted to be operated from the top of the movable section, substantially as and for the purpose specified. 2nd. In a threshold or door-sill of the character set forth, the combination of a box provided with upper horizontal flanges and having screw-seats at regular intervals therein, and openings through the bottom thereof, a movable section mounted in said box, adjusting screws or bolts having their heads exposed through the upper part of said movable section and engaging the screw-seats of the said box, and stops for said adjusting screws, substantially as and for the purpose specified.

No. 59,330. Bedstead. (Bois de lit.)

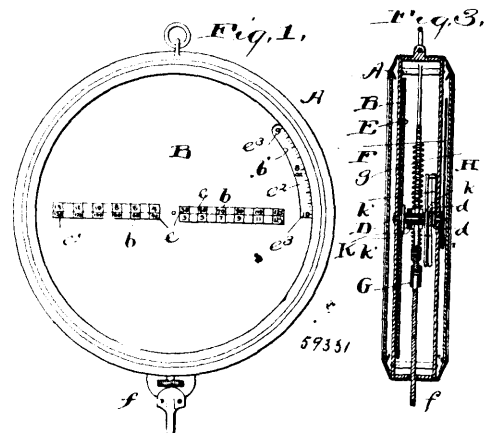


Asahel Jewell Goodwin, Brookline, Massachusetts, U.S.A., 18th March, 1898; 6 years. (Filed 3rd March, 1898.)

Claim.—1st. In a bedstead having an adjustable back, leg or foot support and a lifting frame pivoted to said support, combined with a spring for automatically causing the said lifting frame to be folded beneath the bed when the support is fully lowered, substantially as and for the purpose set forth. 2nd. In a bedstead, an adjustable back, leg or foot support and a lifting frame pivoted to said support combined with an adjusting shaft connected to the lifting frame, a

gear secured to said shaft and having its teeth meshing in a pinion adapted to be actuated by a crank, substantially as and for the purpose set forth. 3rd. In a bedstead, an adjustable back, a leg or foot support and a lifting frame pivoted to said support combined with an adjusting shaft and an adjustable friction device for holding said support in the adjusted position, substantially as and for the purpose set forth. 4th. A bedstead having an adjustable back, leg or foot supports and lifting frames pivoted to said supports combined with a crank actuated shaft and a folding crank pivotally connected to its shank, substantially as and for the purpose set forth. 5th. In a bedstead, a main mattress combined with a leg or seat-supporting adjustable mattress pivoted or connected to the former, and a leg or seat-supporting frame attached in one end to said adjustable mattress and pivoted at its other end to the side rails of the bed frame, substantially as and for the purpose set forth. 6th. In a bed corner fastening, a metal sleeve O cast around the corner post A, combined with a steel or forged metal tee-headed locking bolt P having its shank imbedded in the metal of the male portion of the corner fastening, substantially as and for the purpose set forth. 7th. In a bed corner fastening, in combination, a side rail, a female portion or socket Q attached to such side rail and having a concave bearing surface Q¹ in its upper end and bifurcated bearing surfaces q¹ q¹ in its lower end, adapted to fit the convex guide on the male portion of the device, substantially as and for the purpose set forth. 8th. In a bed corner fastening, in combination, a side rail, a female portion or socket Q attached to such side rail and having a locking recess or slot S adapted to receive the shank of the tee-headed locking bolt on the male portion, said slot having rear inclined locking faces adapted to bear against the head of the said locking bolt, and having an enlarged bifurcated opening R in the lower end of said socket, adapted to receive the head of said locking bolt during the locking or unlocking operation, substantially as and for the purpose set forth. 9th. In a bed corner fastening, in combination, a side rail, a female portion or socket Q attached to such side rail and adapted to be interlocked with a male portion on the corner post, a vertically extending projection or mattress support T on the upper end of said socket, and means for securing thereto the end bar of the mattress, substantially as and for the purpose set forth. 10th. In a bed corner fastening, in combination, a corner bed post, a metal sleeve O cast around said post, and a convex vertical guide O¹ cast integral with said sleeve O, a tee-headed locking bolt P secured to such guide and sleeve and adapted to be interlocked with the female portion of the device, substantially as and for the purpose set forth. 11th. In a bed corner fastening, in combination, a corner bed post, a metal sleeve O cast around said post and having integrally therewith a convex vertical guide O¹, means for locking such corner device to the female portion on the side rail, and a fulcrum or unlocking projection V on the lower end of said guide O¹, substantially as and for the purpose set forth. 12th. In a bed corner fastening, in combination, a metal bed post, a sleeve cast thereon, a tee-shaped convex guide on said sleeve, a tee-headed locking bolt having its shank cast in said guide, and a detachable socket attached to the side rail and having recesses for receiving the head and shank of the locking bolt, and having inclined clamping ledges adapted to fit against the head of the clamping bolt, substantially as and for the purpose set forth.

No. 59,331. Weighing Scales. (Balance.)

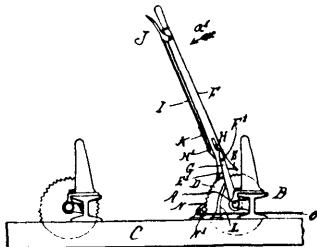


George B. Hoyt and Frank C. Hoyt, both of Cleveland, Ohio, U.S.A., 18th March, 1898; 6 years. (Filed 25th February, 1898.)

Claim.—1st. In a spring balance-computing scale, in combination, the scale-case, its fixed rear face-plate graduated to indicate weights, its fixed front face-plate having a sight-opening b, and rate-indicating figures along the reading edge of the said sight-opening, the transverse shaft projecting through the rear face plate, a pointer secured to said projecting end of the shaft, and a computing-dial, secured to the shaft behind the front face-plate, and having a

plurality of annular columns respectively graduated to indicate values at various rates, and mechanism for actuating said shaft, substantially as and for the purpose specified. 2nd. In a spring balance computing scale, in combination, the scale-case, its fixed rear face-plate graduated to indicate weights, its fixed front plate having sight-opening *b*, along the edge of which rate-indicating figures are placed, and the sight opening *b'*, the transverse shaft journaled in said face-plates and projecting through the rear face-plate, a pointer secured to said projecting end of the shaft, a computing-dial secured to the shaft behind the front face-plate, having one annular column graduated to indicate weights, and a plurality of annular columns respectively graduated to indicate values at the different rates shown by said rate-indicating figures, a spring-supported frame, and mechanism intermediate of the frame and shaft, substantially as and for the purpose specified. 3rd. In a spring balance computing-scale, in combination, the scale-case, its fixed rear plate graduated to indicate weights, its fixed front plate having narrow substantially radial sight-openings *b*, along the edge of which rate indicating figures are placed, and the arc-shaped sight-opening *b'*, the transverse shaft journaled in said face-plates and projecting through the rear face-plate, a pointer secured to said projecting end of the shaft outside of said rear face-plate, a computing-dial secured to the shaft behind the front face-plate and invisible except at the said sight-openings, having one annular column graduated to indicate weights, and a plurality of annular columns respectively graduated to indicate values at the different rates shown by said rate-indicating figures, the width of the sight-openings *b* being such as to disclose substantially but one radial row of figures in said annular column, a spring-supported frame, and mechanism intermediate of the frame and shaft, substantially as and for the purpose specified.

No. 59,332. Saw Mill Mechanism. (Mécanisme de scierie.)



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Frank C. Gowen, Norrie, Colorado, U.S.A., 18th March, 1898; 6 years. (Filed 7th March, 1898.)

Claim.—1st. A reversing mechanism, comprising a ratchet-wheel, an arm mounted to swing from the shaft of the said wheel, a lever fulcrumed on the said arm and carrying two pawls adapted to engage the said ratchet-wheel to turn the latter in either direction and means for engaging the lever and arm, whereby both may be moved together in either direction, substantially as shown and described. 2nd. A reversing mechanism, comprising a ratchet-wheel, an arm mounted to swing from the shaft of the said wheel, a lever fulcrumed on the said arm and carrying two pawls adapted to engage the said ratchet-wheel to turn the latter in either direction, and a movable lug on the said lever and adapted to be engaged by either side of the free end of the said arm, substantially as shown and described. 3rd. A reversing mechanism, provided with an arm mounted loosely on a ratchet-wheel shaft as a fulcrum, a lever fulcrumed on the said arm and provided with ratchet pawls, and a lug fitted to slide in the said lever and adapted to be engaged on either side by the free end of said arm, substantially as shown and described. 4th. A reversing mechanism, provided with an arm mounted loosely on a ratchet-wheel shaft as a fulcrum, a lever fulcrumed on the said arm and provided with ratchet-pawls, a lug fitted to slide in the said lever and adapted to be engaged on either side by the free end of the said arm and means held on the said lever for controlling the movement of the said lug, substantially as shown and described.

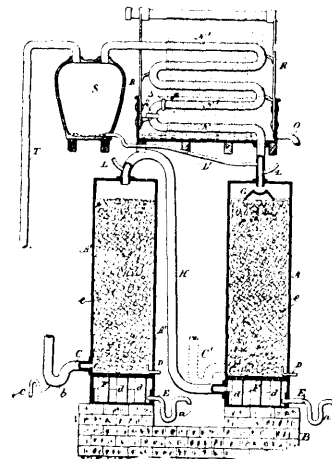
No. 59,333. Nitric Acid Condenser.

(Condenseur pour acide nitrique.)

Jean Vilhelm Skoglund, Bayonne, New Jersey, U.S.A., 18th March, 1898; 6 years. (Filed 22nd October, 1897.)

Claim.—1st. The method herein specified of manufacturing nitric acid, consisting in conveying the nitric acid vapors into a chamber containing pieces of acid proof material, causing such vapors to condense and run in thin films over such pieces of acid proof material and maintaining the temperature of such chamber at the temperature of the incoming nitric acid vapors, or nearly so, for driving off impurities from the acid, substantially as set forth. 2nd. The method herein specified of manufacturing nitric acid, consisting in passing the nitric acid vapors into a chamber containing pieces of acid proof material, maintaining the temperature of said chamber equal to or higher than the boiling point of the nitric acid, allowing the weak acid to condense and run off, passing the remaining nitric vapors

into a second tower or chamber containing pieces of acid proof material, and maintaining such tower or chamber at a temperature



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corresponding or nearly so to the entering nitric acid vapors, condensing the vapors and allowing the nitric acid to run back over the pieces of acid proof material in the form of thin films and conveying away the gaseous impurities thereby producing a substantially pure nitric acid, substantially as set forth. 3rd. The method herein specified of making nitric acid, consisting in passing the nitric acid vapors into a chamber or tower containing pieces of acid proof material, condensing such vapors and allowing the nitric acid to run in thin films over the pieces of acid proof material, maintaining the temperature sufficiently high to drive off impurities and simultaneously exposing the acid to the oxidizing action of atmospheric air, substantially as specified. 4th. In the manufacture of concentrated nitric acid, a primary condenser of acid proof material and a secondary condenser connected therewith of lead, substantially as set forth.

No. 59,334. Aethyl-Alcohol. (Alcool aethyle.)

Emil Zdarek, Vienna, Austria, 18th March, 1898; 6 years. (Filed 22nd December, 1897.)

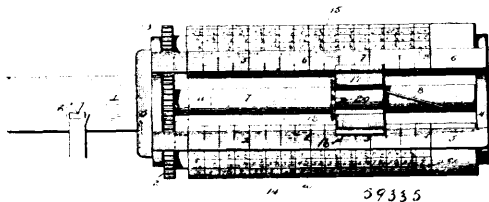
Claim.—1st. A method of manufacturing aethyl-alcohol from cellulose or wood, consisting chiefly in boiling the wood mashed in water with sulphuric acid or sulphuric acid anhydride, in quantity equal to $\frac{1}{10}$ to 3 weight per cent. of the mash, or with a mixture of both these acids, from $\frac{1}{2}$ to 3 hours at a temperature of about 130 to 170 degrees, the pressure in the respective boilers being kept about at $\frac{1}{2}$ to 2 atmospheres above that which corresponds with the temperature in the boilers, by forcing in or injecting an inactive gas, and, after having effected the inversion by boiling, removing the acid contained in the mash and empyreumatic substances, either (a) by introducing into the mash substance a quantity of calcium, which neutralizes only the freed sulphuric acid present, and afterwards boiling it at a temperature of 118 to 130 degrees for the purpose of removing the vinegar acid and empyreumatic substances, at the same time permitting the vapours to escape, whilst before boiling the levulinic acid which may exist in the mash is split by the addition of HNO_3 into vinegar acid and other organic acids, or (b) by neutralizing or converting the organic and inorganic acids contained in the mash into their lime salts by an excess of lime, and separating by electrolysis the acetate and levulinate-lime thus obtained, together with the empyreumatic substances, into carbonic acid and aether, which escape at once, and pure lime, which, after conversion into calcium hydro-oxide or calcium carbonate by the gypsum formed by the neutralization of the sulphuric acid, forms a slimy sediment not soluble, and finally obtaining the aethyl-alcohol from the mash prepared in the manner as specified in sub-claim a or b, by concentrating, fermenting and distilling the same, all substantially as set forth. 2nd. In the method described, the union with sulphuric acid anhydride, if used, of 0.1 to 5 weight per cent. thereof of nitric acid during the first inversion boiling, all substantially as set forth.

No. 59,335. Weighing Scales. (Balance.)

James Eugene Duncan, Centralia, Wisconsin, U.S.A., 18th March, 1898; 6 years. (Filed 17th February, 1898.)

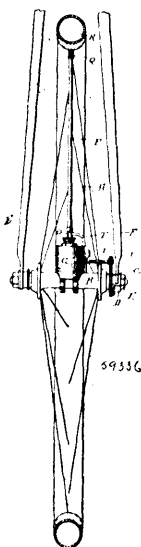
Claim.—1st. The combination with a scale-beam, of a computing-cylinder, superficially provided with circumferential columns of value-characters, a rate-indicator arranged contiguous to the cylinder and provided with columns registering with those on the cylinder, and having characters indicating rates per unit of weight, a poise traversing said rate-indicator and referring to the graduations thereof to indicate weights, and connections between the poise and cylinder, whereby rotary motion is imparted to the latter, substan-

tially as specified. 2nd. The combination with a scale-beam of a computing-cylinder, superficially provided with circumferential



columns of value-characters, a rate indicator arranged contiguous to the cylinder and provided with columns registering with those on the cylinder and having characters indicating rates per unit of weight, said cylinder being circumferentially divided, in the planes of the indicator, and capable of movement either in whole or in part, and of the columns of the rate-bar into a number of divisions corresponding respectively with the characters designating said columns of the rate-bar, a sectional poise traversing a weight-operating connections between one member of the poise and the cylinder, for imparting rotary motion to the latter, substantially as specified. 3rd. The combination with a scale-beam, of a computing-cylinder, superficially provided with circumferential columns of value-characters, a rate indicator arranged contiguous to the cylinder and provided with columns registering with those on the cylinder, and having characters indicating rates per unit of weight, said cylinder being circumferentially divided, in the planes of the columns of the rate-bar, into a number of divisions corresponding respectively with the characters designating said columns of the rate-bar, a sectional poise traversing a weight indicator, and comprising main and auxiliary members, of which the former is capable of movement independently of the latter, a locking device for securing the poise members together, and operating connections between the main poise member and the cylinder, substantially as specified. 4th. The combination with a scale-beam, of a computing-cylinder, superficially provided with circumferential columns of value-characters, a rate indicator arranged contiguous to the cylinder and provided with columns registering with those on the cylinder, and having characters indicating rates per unit of weight, said cylinder being circumferentially divided, in the planes of the columns of the rate-bar, into a number of divisions corresponding respectively with the characters designating said columns of the rate-bar, a sectional poise traversing a weight-indicator, and comprising main and auxiliary members, of which the former is movable independently of, and is recessed to receive, the latter, a yielding catch on the main member to engage a depression in the auxiliary member, and normally held out of engagement therewith, and operating connections between the main poise member and the cylinder, substantially as specified.

No. 59,336. Bicycle Pump. (Pompe de bicycles.)

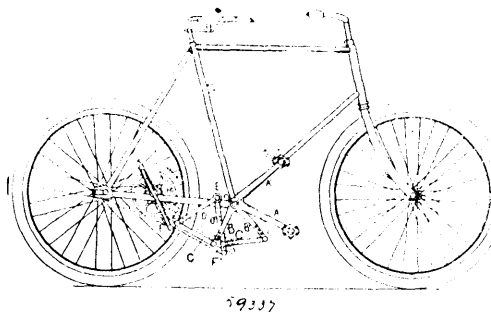


Nathan R. Wickersham and Harry A. Jamieson, both of Philadelphia, Pennsylvania, U.S.A., 19th March, 1898; 6 years. Filed 10th February, 1898.)

Claim.—1st. A wheel having a pump connected with the tire thereof for inflating the same, a box on the hub of said wheel, supporting the barrel of said pump, a crank shaft mounted on the sides of said box and a shifting pinion on said shaft, in combination with

a bracket and a gear-wheel which are stationarily mounted on the axle of wheel, said bracket and gear-wheel being rigidly connected one with the other, said crank shaft being formed in sections and having means for fastening the latter. 2nd. A wheel having a pump connected with the tire thereof for inflating the same, in combination with a crank-shaft which has the pump or piston rod attached thereto and a bearing on the hub of said wheel for said shaft, a pinion on journal of said shaft and a stationary gear-wheel carried by the axle, said crank-shaft having its wrist separate from a side arm of said shaft and provided with a fastening device, a journal of said shaft being laterally movable on the bearings and said arm having a laterally-extending socket, movably receiving said wrist. 3rd. A pump for inflating the tire of a wheel, a crank-shaft, a box forming a bearing for said shaft, the pump or piston rod being mounted on said shaft, a shifting pinion on one of the journals of said shaft, a gear-wheel with which said pinion meshes and a bracket which is firmly secured to said gear-wheel, said bracket and gear-wheel being held stationary on the axle and said crank-shaft formed of separate sections, one of the journals thereof being adapted to move laterally on said box, thus disconnecting said sections. 4th. An apparatus for automatically inflating pneumatic tires consisting of a suitable box or cylinder carried by the hub, a pump carried by the cylinder, means also carried by the cylinder for operating the pump by the rotations of the wheel, and means for conveying air thus compressed to the tire, as specified. 5th. A device for inflating the tires of vehicles, consisting of a suitable box or cylinder, a plunger fitted to slide therein, a crank-shaft journaled in said plunger, means for revolving said shaft by the rotations of the wheel, a pump adapted to be actuated by the crank-shaft, and a run-around for automatically throwing the crank-shaft out of action when the determined pressure has been reached, as specified. 6th. A device for inflating tires of vehicle wheels, consisting of a suitable box or cylinder, a plunger fitted to slide therein, a spring adapted to normally hold said plunger downward, a crank-shaft journaled in the plunger, a pinion carried by the outer end of the shaft, a stationary gear-wheel with which said pinion meshes, a pump, a piston fitted therein and actuated by the crank-shaft, a run-around leading from the upper portion of the pump to the cylinder below the plunger, and means for latching the plunger in its elevated position, as specified. 7th. In combination, a box or cylinder adapted to be secured to the hub of a bicycle or other vehicle, a plunger fitted therein, a crank-shaft journaled within said plunger, a pinion carried by the outer end of the shaft, a stationary gear with which said pinion normally meshes, a spring for holding the plunger downward, a pump, a piston fitted therein and adapted to be operated by the crank-shaft, a run-around passage leading from above the pump to a point beneath the plunger whereby the pressure created by the pump will be exerted upon the underside of the plunger, and a latch having a plunger head adapted to be operated by the pump pressure whereby the plunger may be held in an elevated position during certain limits of pressure within the tire, as specified. 8th. In combination with an automatic tire-inflating apparatus, a plunger fitted within the cylinder and adapted to be moved in one direction by the pump pressure, a latch adapted to engage a notch formed in the plunger, a head carried by said latch serving as a plunger, a spring arranged beneath said head for normally forcing the latch inward, substantially as shown and described.

No. 59,337. Bicycle Driving Mechanism. (Mécanisme de commande de bicycles.)

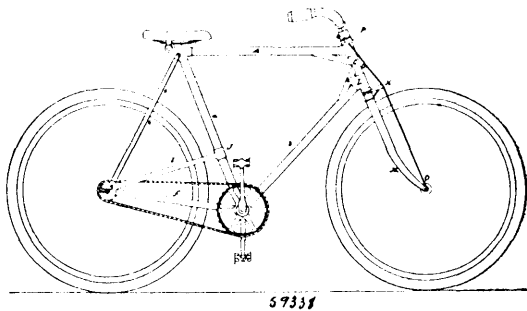


DeWitt Webster Spence, Guelph, Ontario, Canada, 19th March, 1898; 6 years. (Filed 15th February, 1898.)

Claim.—The new or improved driving mechanism for bicycles or velocipedes, consisting of the rocking levers A A', carrying the pedals suitably fulcrumed on the frame of the bicycle, downwardly projecting arms B B', provided with regulating holes or stops, on the said levers, primary connecting rods C C', the forward ends being pivoted in one or other of the stops or holes, the rear ends being pivoted near the ends of the swinging bars D D', which in turn are suspended from the horizontal pin E situate on the lower bar of the frame a little to the rear of the rocking levers, the secondary connecting rods F F' pivoted on the extreme end of the swinging bars D D', the other end being attached to the cranks

carrying the sprocket-wheel H, which drives the rear sprocket by means of a chain in the usual manner, the whole combined and operating as hereinbefore described and illustrated in the drawings.

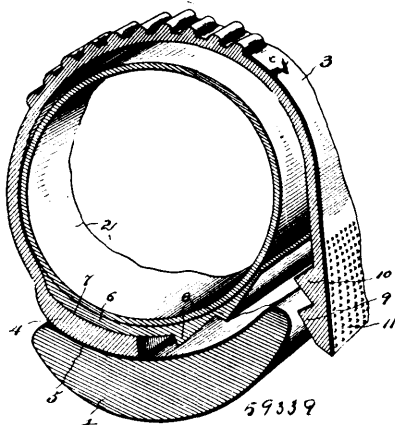
No. 59,338. Bicycle Frame. (Monture de bicycles.)



James Bertie, Toronto, Ontario, Canada, 19th March, 1898; 6 years. (Filed 16th February, 1898.)

Claim.—1st. The truss or stay rods O, O¹ and lugs K, K, substantially as and for the purpose hereinbefore set forth. 2nd. The diagonal braces H¹ and H² which strengthen the upper and lower reach bars A and B, substantially as and for the purpose hereinbefore set forth. 3rd. The bifurcated brace I, I, which strengthens the standard D, and forks F, F, substantially as and for the purpose hereinbefore set forth.

No. 59,339. Pneumatic Tire. (Bandage pneumatique.)

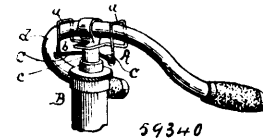


William Irwin Dreisbach, Williamsport, Pennsylvania, U.S.A., 19th March, 1898; 6 years. (Filed 18th February, 1898.)

Claim.—1st. In a pneumatic tire, an outer case provided at one of its edges with one or a series of integral longitudinal ribs or corrugations arranged on the outer surface thereof, and one or a series of integral longitudinal ribs or corrugations at the opposite edge of said case or tube and arranged on the inner surface thereof, the rib or ribs on the first-named edge of the tube or case being of proper diameter to permit the free edge of the outer case to be removably inserted and interlocked with the rib or ribs on the other edge of the case or tube, substantially as described. 2nd. In a pneumatic tire, the combination with a wheel rim, of a tube provided on one edge with a rib or ribs, and a locking flap united to the other edge of said case and also provided with the rib or ribs adapted to engage with the rib or ribs of the first-named edge of the case, substantially as and for the purposes described. 3rd. In a pneumatic tire, a tube provided at one of its edges with a rib or ribs arranged on the inner face thereof, a locking flap projecting from the other edge of said outer case and provided on its outer face with a rib or ribs adapted to interlock with the corresponding rib or ribs on the first-named edge of the case, and a roughened seat provided on the exposed faces of the edges of said case, substantially as and for the purposes described. 4th. In an inflatable tire, a tube or tire provided with a thickened edge, a locking flap projecting from said thickened edge of the tube and provided with a rib or ribs, the other edge of said tire or tube having a rib or ribs and adapted to lap under the flap to present the rib or ribs thereon into position to lock with the rib or ribs on said locking flap, substantially as described. 5th. In an inflatable tire, a tube or case having its edges thickened and provided with roughened outer bearing faces, one edge of said tube having a rib or ribs, combined with a locking flap projecting from the thickened edge of said tube or case and provided with a rib or ribs adapted to interlock with the rib or ribs on the edge of the tube or casing, substantially as and for the purposes described. 6th. In an

inflatable tire, a tube provided with a rib or ribs on the inner face of one edge thereof and having its other edge thickened transversely, in combination with a locking flap projecting from the thickened edge and having on its projecting part a rib or ribs to interlock with the corresponding rib or ribs on the tube or case, substantially as described. 7th. In an inflatable tire comprising a tube provided at one edge with a rib or ribs on its inner face and having its other edge thickened transversely, and a locking flap provided on the outer face of its projecting portion with a rib or ribs to interlock with the rib or ribs of the free edge of the case or tube, said ribs being of proper width and depth to insure interlocking of the two parts of the divided tube or case which is adapted to be used singly as a hose tire or in connection with an inner tube, as set forth. 8th. An inflatable tire having a thickened edge and a series of ribs or corrugations beyond said thickened edge, the other edge of the tire provided with like corrugations or ribs, one of which has an inclined or bevelled face, substantially as described. 9th. An inflatable tire comprising a divided tube provided with the films or layers which cover the ribs or corrugations thereof and a soft rubber sealing between said interlocking ribs or flanges, substantially as described.

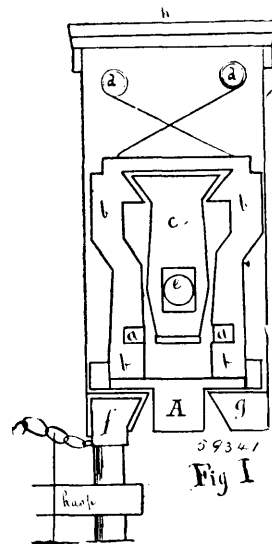
No. 59,340. Bicycle Luggage Carrier. (Porte-paquet pour bicycles.)



Harold James Manning Baker, Port Townsend, Washington, U.S.A., 19th March, 1898; 6 years. (Filed 18th February, 1898.)

Claim.—As an improved article of manufacture, the wire luggage-carrier hereinbefore described, the same having a central horizontal bend or open loop, for embracing the bicycle head or post, arms extending laterally from such loop, and the vertical loops a, a, formed at the ends of said arms and projecting forward, so as to hang on the handle bar, and their terminal portions extending downward below the middle loop, and having hooked ends a¹, as shown.

No. 59,341. Means of Joining Bicycle Frames. (Moyen de joindre les tubes pour montures de bicycles.)



Bruno Wesselmann, Gottingen, Germany, 18th March, 1898; 6 years. (Filed 14th January, 1897.)

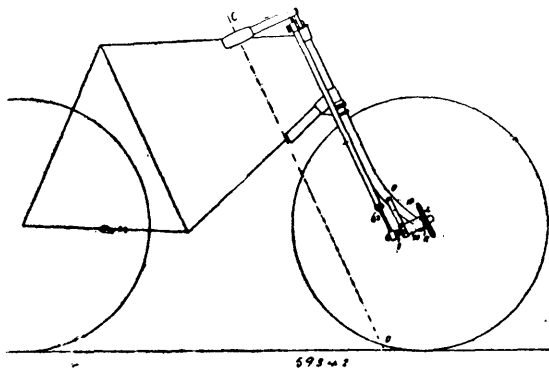
Claim.—The art of joining tubes or pipes, which consists in introducing the extremity of the tube within the extremity of the second tube, and punching or otherwise forming elevations or recesses through the walls of both tubes, whereby the extremity of the tubes will be rigidly held in position, substantially as set forth.

No. 59,342. Bicycle. (Bicycle.)

Augustus Lea Bricknell, No. 2, Horsford Road, Brixton Hill, Surrey, England, 19th March, 1898; 6 years. (Filed 13th May, 1896.)

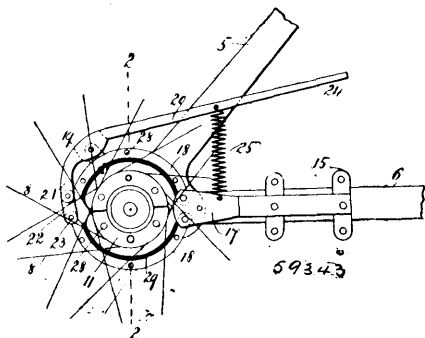
Claim.—1st. A tricycle or bicycle having a rocking or reciprocating handle bar connected by a connecting rod to gearing operating the

steering wheel, substantially as set forth. 2nd. A bicycle or tricycle having a rocking or reciprocating handle bar, a connecting



rod operating a crank on the axle of a bevel toothed wheel, and another bevel toothed wheel on the steering wheel, substantially as set forth. 3rd. A bicycle or tricycle having a rocking or reciprocating handle bar, a connecting rod operating a crank on the axle of a spur wheel and another spur wheel on the steering wheel, substantially as set forth. 4th. In a bicycle or tricycle, the combination with the hinged reciprocating handle bar E of the connecting rod G connecting the said handle bar with the crank I, the crank I, axle K, the bevel toothed wheel L, and bevel toothed wheel R on the steering wheel, substantially as set forth. 5th. In a bicycle or tricycle, the combination with the hinged reciprocating handle bar E of the connecting rod G connecting the said handle bar with the crank I, the crank I, axle K, the spur wheel L and spur wheel R on the steering wheel, substantially as set forth. 6th. In a bicycle or tricycle, the combination with the axle K carrying at one end the crank I and at the other the bevel toothed wheel L, of the bearing M secured to the axle of the steering wheel by a screw coupling, and the stay M¹ bolted to a stud M² on the said bearing and to one of the prongs O, substantially as set forth. 7th. In a bicycle or tricycle, the combination with the bevel toothed wheel L on the axle K, of the bevel toothed wheel R formed in one piece or attached to the hub S of the steering wheel, substantially as set forth. 8th. In a bicycle or tricycle, the combination with the spur wheel L on the axle of the crank I, of the spur wheel R formed in one piece or attached to the hub of the steering wheel, substantially as set forth. 9th. A bicycle or tricycle having a rocking or reciprocating handle bar, a connecting rod operating a crank on the axle of a toothed wheel, another toothed wheel on the steering wheel and a clutch whereby the said connecting rod may be engaged or disengaged from the handle bar, substantially as set forth. 10th. In a bicycle or tricycle, the combination with the reciprocating handle bar E of the bent lever G¹, a tooth or projection T on its lower end, the said lever being pivoted to the tubular part G² of the connecting rod G and G³, the part C sliding in the tubular part G², the said rod and tube being provided with holes T¹ and T² adapted to be engaged by the tooth or projection T, substantially as set forth. 11th. In a bicycle or tricycle, the combination with the reciprocating handle bar E having a tooth T, of the touch handle G¹ attached to the connecting rod G and provided with a notch H in which the tooth T on the handle bar is adapted to engage, substantially as set forth.

No. 59,343. Bicycle Brake. (Frein de bicycles.)



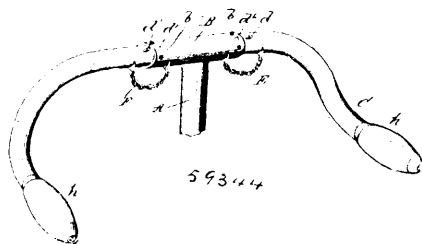
Elza Delzern Hinkley, Sing Sing, New York, U.S.A., 19th March, 1898; 6 years. (Filed 8th February, 1898.)

Claim.—1st. A bicycle or similar vehicle, provided with a brake, which consists of a brake-hub mounted on the hub or axle of the drive-wheel, an arm connected with one side of the frame, two circular brake-shoes pivotally connected with said arm and enclosing

said hub, and a lever pivotally connected with the upper brake shoe and with a link which is pivotally connected with the outer end of the lower brake-shoe, said lever being directed forwardly, substantially as shown and described. 2nd. A bicycle or similar vehicle, provided with a brake, which consists of a brake-hub mounted on the hub or axle of the drive-wheel, an arm connected with one side of the frame, two circular brake-shoes pivotally connected with said arm and enclosing said hub, and a lever pivotally connected with the upper brake-shoe and with a link which is pivotally connected with the outer end of the lower brake-shoe, said lever being directed forwardly, and means for holding the brake-shoes out of contact with the hub, substantially as shown and described. 3rd. A bicycle or similar vehicle, provided with a brake, which consists of a brake-hub mounted on the hub or axle of the drive-wheel, an arm connected with one side of the frame, two circular brake-shoes pivotally connected with said arm and enclosing said hub, and a lever pivotally connected with the upper brake-shoe and with a link which is pivotally connected with the outer end of the lower brake-shoe, said lever being directed forwardly, and being provided with an expansive spring whereby it is held in a raised position, substantially as shown and described. 4th. The combination with a bicycle, of a detachable brake-hub, comprising two discs, 11 and 12, each of which is provided with a central opening, through which the barrel of the wheel is adapted to pass, one of said discs being mounted on each side of the annular flange to which the spokes are secured, and said discs being held together by screws 13, substantially as and for the purpose described.

No. 59,344. Bicycle Handle Bar.

(Poignée de barres de bicycles.)

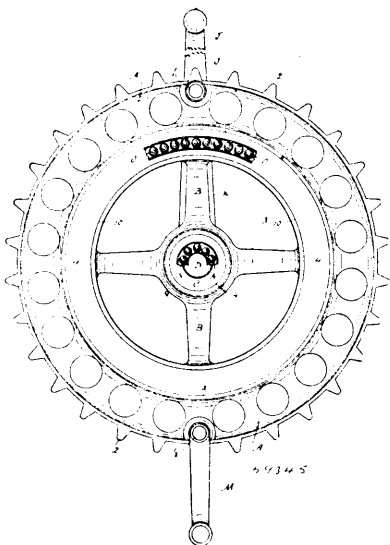


George Warren Drew, San Francisco, California, U.S.A., 19th March, 1898; 6 years. (Filed 8th February, 1898.)

Claim.—1st. An improved bicycle handle bar, comprising a head or stem, and handle sections carried thereby and vertically adjustable with relation thereto, substantially as set forth. 2nd. An improved bicycle handle bar, comprising a head or stem, handle sections carried thereby and in movable connection therewith, and means for adjusting the connection of said handle sections with the carrying stem to raise or lower the handle, substantially as set forth. 3rd. An improved bicycle handle bar, comprising a head or stem, and handle sections vertically adjustable with respect to said carrying stem and provided with devices adapted to engage the latter at different points of adjustment, substantially as and for the purpose set forth. 4th. An improved bicycle handle bar, comprising a tubular cylindrical head or stem, in combination with handle sections having corresponding ends fitted to said stem and movable thereon in a rotary manner, and means for locking the handle section and stem in connection at different points in the turning movement of the handle section, substantially as and for the purpose set forth. 5th. An improved bicycle handle bar, comprising a tubular cylindrical head or stem, handle sections having a corresponding end received within the ends of said tubular stem and adapted to turn therein, and devices for locking the enclosed ends of the handle sections in connection with the tubular stem, substantially as and for the purpose set forth. 6th. An improved bicycle handle bar, comprising a tubular cylindrical head or stem, and handle sections adapted to have their ends received by the ends of said tubular stem and carrying spring catch devices adapted to engage the latter, substantially as and for the purpose set forth. 7th. An improved bicycle handle bar, comprising a tubular cylindrical stem provided with eyes or openings arranged in a series extending around its circumference, in combination with the handle sections having their ends corresponding to and adapted to be received within the ends of the stem and provided with a spring catch device adapted to engage said openings, substantially as and for the purpose set forth. 8th. An improved bicycle handle bar, comprising the tubular cylindrical head or stem having eyes or openings arranged in a series extending around its circumference, in combination with the handle sections having their ends corresponding to and adapted to be received within the end of the stem and provided interiorly with spring plates having outwardly projecting pins or studs adapted to engage said openings in the stem, substantially as and for the purpose set forth. 9th. An improved bicycle handle bar, comprising, in combination with head or stem, curved handle sections adjustable connected with said stem and adapted to

turn thereon, and means for securing said handle sections in their adjusted position with relation to the stem, substantially as and for the purpose set forth. 10th. An improved bicycle handle bar, comprising a head or stem, handle sections detachably connected with and carried by said stem, and flexible chains or devices extending between the handle section and stem and securing the detachable handle section permanently to the stem, substantially as and for the purpose set forth.

No. 59,345. Bicycle. (Bicycle.)



Charles Gentle, Hamilton, Ontario, Canada, 19th March, 1898; 6 years. (Filed 7th February, 1898.)

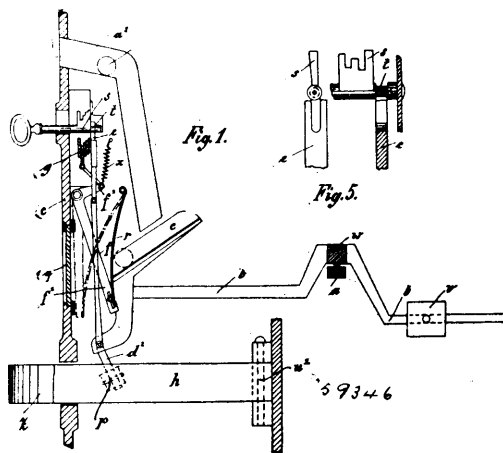
Claim.—1st. The driving gear herein described, consisting of a foot pedal crank forming a part of a journal which extends through the crank-hanger to support the large sprocket wheel on ball bearings, a crank-arm secured to said journal between the said crank-hanger and sprocket wheel, the end of said arm secured to the rim of the wheel, a connecting-arm secured to the opposite side of said rim of wheel, a foot pedal connected to said connecting-arm, both of said arms being in diametrical line to said sprocket wheel. 2nd. The driving gear herein described, consisting of a foot pedal crank forming a part of a journal extending through the crank-hanger to support the large sprocket wheel on ball bearings in said journal, a crank-arm secured to the journal between the crank-hanger and the sprocket wheel, the end of said arm secured to the rim of the wheel, a connecting arm secured to the opposite side of said rim, a foot pedal secured to said connecting arm, said arms being in diametrical line to said rim having a groove to conform with the annular groove in the middle section of the wheel as bearings for the series of balls, a ring section screwed to the said middle section to admit the balls, a central cone in sections having annular thread, a thread on the said middle section to screw on and fasten thereto to form a sprocket wheel, as described. 3rd. A sprocket drive wheel for bicycles of the character described, consisting of an outer rim, or section capable of revolving loosely on and in a middle section of the wheel on balls in grooved bearings formed in said sections, said middle section having a screwed ring to admit said balls in position, a central cone of the wheel in two parts to admit a series of balls which operate in an annular groove in the crank journal and a groove corresponding thereto in said cone, an annular thread on said cone for screwing on of the said middle section of the wheel and fastening of the same thereto as described. 4th. The middle section of the sprocket wheel having an outer part screwed thereon forming an annular recess to receive the rim of the wheel, grooves in said rim to receive annular flanges on the inner sides of said middle section as dust protectors, said rim to revolve freely on a series of balls, grooves formed in the middle section and the rim, a central cone in parts to admit a series of balls in annular groove of the crank journal and in the cone, an annular thread on the cone to allow the said middle section to screw and fasten thereon and an outer dust proof cover secured to the outer face of the cone, as described.

No. 59,346. Bicycle Holder. (Porte-bicycles.)

Eugen von Reibnitz, Hündelstrasse, Berlin, Germany, 19th March, 1898; 6 years. (Filed 28th December, 1897.)

Claim.—1st. A holding device for cycles, comprising a detachable holding device to encircle a given portion of the cycle, a locking device normally holding the detachable device closed, a coin receptacle designed to co-act with the locking device, a key designed to turn such locking device after being freed, and a depositing slot for the coin having the bottom mouth thereof directly over the coin receptacle, as and for the purpose specified. 2nd. In a holding

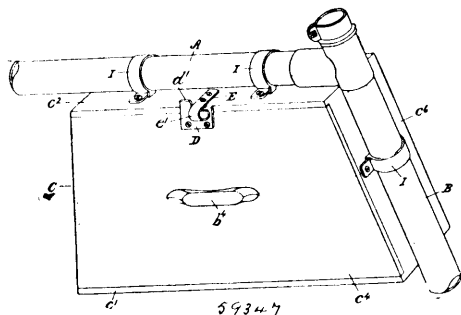
device for cycles, in combination, a detachable device to encircle a given portion of the cycle, a weighted lever suitably pivoted, a



coin receptacle at the forward end of the lever, a locking device adjustably connected to the coin receptacle, a coin depositing slot, and a key for operating the locking device upon the coin being deposited in the receptacle and the parts being thrown into operative connection, as and for the purpose specified. 3rd. In combination, a detachable device to encircle a given portion of the cycle, a weighted lever suitably pivoted, a coin receptacle at the forward end of the lever, a locking device suitably connected to the detachable holder, a suitable system of levers and bars such as described connected to the coin receptacle and to the detachable device, and a key designed to operate one of the bars so as to withdraw the locking device, and a coin depositing slot whereby the coin is deposited in the coin receptacle to operate the levers, as and for the purpose specified. 4th. In combination, the lever 'b', provided with a weight 'c', the coin receptacle 'e', the coin slot 'a', the holding device 'k', the spring-bar 'd' connected to an arm at the bottom of the coin receptacle, the rod 'f' having a forked upper end and connected at the lower end to the bar 'd', the key 's' having an annular groove 't' to hold the key in place, and means operated by the key for releasing the coin from the coin receptacle, as and for the purpose specified. 5th. In combination, the lever 'b', provided with a weight 'c', the coin receptacle 'e', the coin slot 'a', the holding device 'k', the spring-bar 'd' connected to an arm at the bottom of the coin receptacle, the rod 'f' having a forked upper end and connected at the lower end to the bar 'd', the key 's' having an annular groove 't' to hold the key in place, the closing piece 'r', the bell crank-lever 'f2', the spring 'x', and the path or key-ward 'g', suitably supported, and the link connecting it to the upper end of the bell crank-lever 'f1', as and for the purpose specified.

No. 59,347. Bicycle Parcel Carrier.

(Porte-paquet pour bicy-cles.)



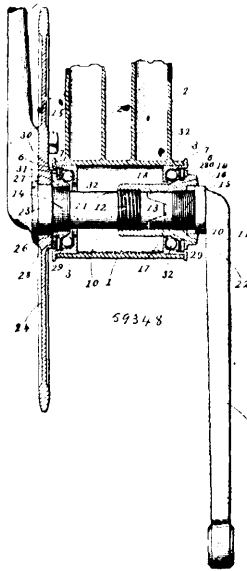
Andrew B. Gibson, London, Ontario, Canada, 19th March, 1898; 6 years. (Filed 17th January, 1898.)

Claim.—1st. A case or box C, and the resilient plate or material F, in combination with the receptacles G, and H, said spring plate or material being interposed between the adjacent faces of said case and said receptacles, substantially as and for the purpose set forth. 2nd. A case or box C, having a detachable front c1, and means for securing the latter in place in combination with the resilient plate or material F, and the receptacles G H, substantially as and for the purpose set forth. 3rd. The case or box C, in the bottom c2, of which the socket b2, is formed, the socket plate b3, and the spring catch E, in combination with the detachable side c1, provided with a pin or plate b1, substantially as and for the purpose set forth. 4th. The case or box C, the spring catch E, formed with a curved or

angular end c^1 , in combination with the detachable side c^4 and the plate D, formed with a portion d^1 , projecting above the case C, substantially as and for the purpose set forth. 5th. The case or box C, in the bottom c^1 , of which the socket b^2 , is formed the plate b^3 , and the spring catch E, in combination with the detachable side c^4 provided with the pin or plate b^1 , and the plate D, substantially as and for the purpose set forth. 6th. The case or box C, and the keepers K K, in combination with the clasps I I, provided with the hooks J J, substantially as and for the purpose set forth. 7th. The case or box C, provided with detachable side c^4 , and means for securing the latter in place and the keepers K K, in combination with the clasps I I, provided with the hooks J, substantially as and for the purpose set forth. 8th. The case or box C, provided with a detachable side c^4 , and means for securing the latter in place in combination with the clasps I, substantially as and for the purpose set forth.

No. 59,348. Bicycle Crank Shaft.

(*Bielle pour essieu de bicycles.*)

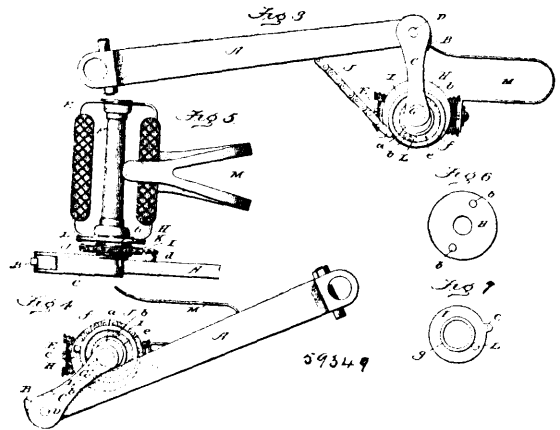


Leo Melanowski, Buffalo, New York, U.S.A., 19th March, 1898; 6 years. (Filed 24th February, 1898.)

Claim.—1st. A divided crank shaft, each portion provided with screw threads running in the same direction, the thread on one being coarser than the thread upon the other, in combination with a sleeve provided with two sigilarly internally screw threaded portions adapted to fit upon the screw threaded portions of the crank shaft, as set forth. 2nd. A crank shaft formed in two separable portions, in combination with a sleeve for locking the two portions together and having a protruding portion for receiving a tool to operate said sleeve, as set forth. 3rd. In a crank hanger and bearing therefor, the combination of a crank shaft comprising two separable shaft portions each provided with screw threads running in the same direction and one coarser than the other, and a sleeve provided with interior screw threads adapted to engage with the screw threads upon the shaft ends whereby as the rotation of the sleeve will cause the coarse threaded shaft portion to travel faster longitudinally than the fine threaded shaft portion, the rotation of the sleeve upon the shaft portions will draw the portions toward each other or move them from each other according to the direction of the rotation. 4th. In a crank shaft and bearing, a cone provided with a peripheral groove to receive and retain a washer, as set forth. 5th. In a crank shaft and bearing, the combination of the shaft formed in two portions, the locking sleeve, the outer bearing cases and the cones, one of said cones being formed integral with the sleeve, as set forth. 6th. In bicycle construction, a crank hanger, bearing cases adjustably mounted in the ends thereof, the cranks, a sprocket, a shaft formed in two portions, one shaft portion provided with a screw thread near its juncture with the crank and an additional screw thread near its inner end, a cone screwed upon the first screw thread and tightly against the sprocket wheel, and the other shaft portion with a screw thread of finer lead than the additional screw thread upon the other shaft portion, and a combined cone and locking sleeve provided with two interior screw threads adapted to engage with the screw threads upon the shaft ends, as set forth. 7th. In a crank shaft and bearing, the combination with the bearing cases provided with interior shoulders, of ball retainers adapted to seat against said shoulders, as set forth.

No. 59,349. Bicycle Crank and Pedal Mechanism.

(*Bielle de bicycles et mécanisme de pédales.*)

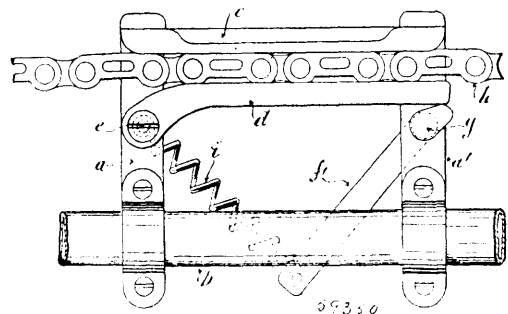


James Caldwell Anderson, Chicago, Illinois, U.S.A., 19th March, 1898; 6 years. (Filed 25th February, 1898.)

Claim.—1st. In a crank mechanism for bicycles, the combination with a crank A, pedal E F, and pivoted crank extension C, intermediate mechanism between the crank A and the pedal shaft whereby the travel of the pedal shaft and rotation of the pedal positively causes the extension C to approach the crank during the rear and upward travel of the pedal, as hereinbefore described. 2nd. In combination with the crank A, pivoted extension C, having eccentric wrist a , and the pedal shaft G secured in the end of extension C, the pedal E F, disc H, having stud b , chain pulley I, with stud L, and connecting chain J, substantially as and for the purpose set forth.

No. 59,350. Brake for Velocipede, Tricycle, etc.

(*Frein pour vélocipèdes, tricycles, etc.*)



Thomas Henry Simmonds, 16 Peartree Street, Goswell Road, London, England, 19th March, 1898; 6 years. (Filed 26th February, 1898.)

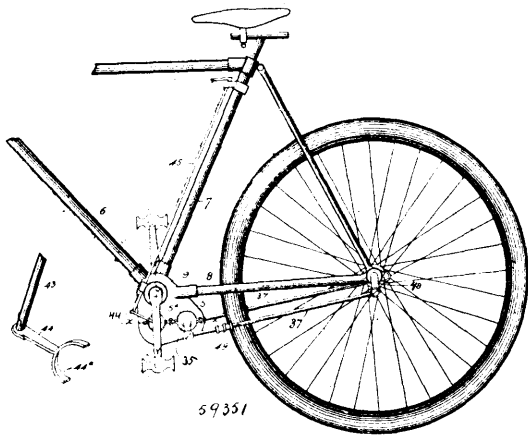
Claim.—In brakes for velocipedes, tricycles and other chain driven mechanism, a fixed and a movable gripping surface, between which the chain is gripped, the movable gripping surface being suitably operated by the hand or foot of the rider, substantially as described and illustrated herein.

No. 59,351. Bicycle. (Bicycle.)

Michael McAneny, Denver, Colorado, U.S.A., 19th March, 1898; 6 years. (Filed 4th March, 1898.)

Claim.—1st. In a bicycle gear, the combination with a casing mounted upon the frame, of a crank shaft journaled therein, a gear centrally mounted thereon, and made fast thereto, a slotted clutch sleeve also journaled in the casing and having shoulders on each side of its centre, which is enlarged, a pinion fast on the central portion of the sleeve, a clutch member loosely mounted on the sleeve and engaging each shoulder thereof, said clutch members being provided with recesses adapted to register with the slot in the sleeve, a pin passing through the slot in the sleeve and adapted to slide to engagement with the clutch members, gears of unequal size applied to the respective clutch members, means for shifting the clutch pin to engagement with either clutch member as desired, means for holding the clutch members and their respective gears in place upon the sleeve, another shaft journaled in the casing and carrying fast gears meshing with the gears on the clutch sleeve, and means for connecting the last named shaft with the rear wheel, substantially

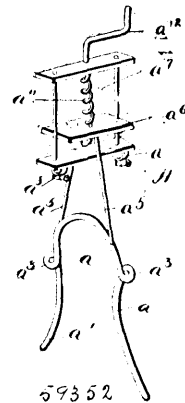
as described. 2nd. The combination with a casing mounted on the bicycle frame, of a crank shaft journaled thereon and a gear



fast on said shaft, a clutch sleeve also journaled in the casing and having a shoulder on each side of its enlarged central portion, said sleeve being provided with a slot extending through the enlarged portion and beyond the shoulders on either side, a pinion keyed on the central portion of the sleeve and meshing with the gear on the crank shaft, a clutch member loosely mounted on the sleeve and engaging the shoulder on each side of the center, said members being recessed to coincide with the slot extremities, a pin passed through the slot in the sleeve and adapted to slide to engagement with either clutch member, differential gears mounted on the respective clutch members and made fast thereto, means for shifting the clutch pin to engagement with either clutch member, another shaft journaled in the casing and carrying fast gears meshing with the differential gears on the sleeve, and rods for connecting cranks on the last named shaft with cranks on the hub of the rear wheel, which is journaled in the frame, substantially as described. 3rd. In a bicycle gear, the combination with a suitable casing, the crank shaft journaled therein and the gear made fast on said shaft, of the slotted clutch sleeve journaled in the casing, a pinion made fast to the central portion of said sleeve and meshing with the gear on the crank shaft, a pin passed through the slot in the sleeve, a clutch member loosely mounted on the sleeve on each side of the pinion and having recesses adapted to register with the extremities of the slot in the sleeve, differential gear carried by the respective clutch members, another shaft journaled in the casing and carrying fast gears meshing with the differential gears on the sleeve, a stem attached to the clutch pin and telescoping in the clutch sleeve, and suitable means connected with the outer extremity of said stem for shifting the pin, substantially as described. 4th. In a bicycle gear, the combination of a suitable casing and the crank shaft journaled therein, of the gear made fast on the shaft, the clutch shaft journaled in the casing and carrying a sliding device for locking the gears thereon, a pinion fast to the clutch shaft and meshing with the gear on the crank shaft, two gears of unequal size loosely mounted on said clutch shaft, one being located on each side of the pinion and each being adapted to engage the locking device when the latter is properly adjusted, means for shifting the locking device to engagement with either gear, a third shaft journaled in the casing, gears fast on the last named shaft and meshing with the gears on the clutch members, and suitable means for connecting the third shaft with the rear wheel. 5th. In a bicycle gear, the combination when the casing mounted upon the frame, of a crank shaft journaled therein, a gear mounted thereon and made fast thereto, a slotted sleeve journaled in the casing, a pinion fast on the sleeve, a clutch member loosely mounted on the sleeve on each side of the pinion, a pin passing through the slot in the sleeve and adapted to slide to engagement with the clutch members, gears of unequal size applied to the respective clutch members, means for shifting the clutch pin to engagement with either clutch member as desired, another shaft journaled in the casing and carrying fast gear, meshing with the gears on the clutch sleeve, and means for connecting the last named shaft with the rear wheel. 6th. The combination with a casing, of a crank shaft journaled therein, a gear fast thereon, a shaft 19 also journaled on the casing and having two separated shoulders, said shaft being provided with a slot located between and extending beyond the said shoulders on either side, a pinion fast on the shaft between the said shoulders and meshing with the gear on the crank shaft, clutch gears differing in size engaging the shoulders on the shaft 19 and located on each side of the pinion, said gears having recesses adapted to register with the extremities of the slot in the said shaft, a pin engaging the slot in the shaft and adapted to slide to engagement with either clutch gear, suitable means for shifting the clutch pin to engagement with either clutch gear, another shaft also journaled in the casing, and gears fast thereon and meshing with the gears on the shaft 19. 7th. In a speed gear, the combina-

tion with a suitable support, of a shaft journaled therein and having two separated shoulders, said shaft having a slot formed between the said shoulders and projecting beyond the same, a gear or pinion fast on the shaft between the shoulders, and clutch gears loosely mounted respectively on opposite sides of said pinion and engaging the shoulders on said shaft, said gears having recesses adapted to register with the extremities of the slot in the shaft, a pin engaging said slot, and means for shifting the pin to engagement with either clutch gear. 8th. In a speed gear, the combination with a suitable casing, of three shafts, 9, 19 and 47, journaled therein, a gear fast on the shaft 9, a pinion fast on the shaft 19 and meshing with the gear on the shaft 9, two gears of unequal size loosely mounted on the shaft 19 on each side of the pinion, adjustable means for locking either gear on the shaft 19 at will, and two gears fast on the shaft 47 and meshing with the gears on shaft 19. 9th. In a bicycle, the combination with a casing mounted on the frame of the machine, of a pedal shaft journaled therein, a gear fast on said shaft, another shaft also journaled in the casing, a pinion mounted on the last named shaft and meshing with the gear on the crank shaft, a gear also mounted on the pinion shaft, a third shaft journaled in the casing, a gear fast on the last named shaft and meshing with the gear on the pinion shaft, the third shaft being provided with two cranks, two other cranks attached to the hub of one of the bicycle wheels, and rods connecting the cranks on the third shaft with the cranks on the wheel hub. 10th. In a speed gear for bicycles, the combination, with a bicycle frame, of a two-part casing, one part of which is made fast to the frame, three shafts, 9, 19 and 47, journaled therein, the casing being divided on the centre line of the shafts 19 and 47, half of the bearings for the shaft journals being on each section of the casing, a gear mounted on the shaft 9, a pinion mounted on the shaft 19 and meshing with the gear on the shaft 9, a gear mounted on the shaft 19 to one side of the pinion, and a gear mounted on the shaft 47 and meshing with the gear on the shaft 19. 11th. The combination with a bicycle frame, of a two-part casing, one part of which is made fast to the frame of the machine, the other part being detachably connected with the stationary part, a nest of co-operating gears enclosed by the casing, three shafts journaled on the casing and upon which the gears are mounted, the casing being divided on the centre line of two of the shafts, whereby as one part of the casing is detached the two shafts and the gears mounted thereon may be removed. 12th. In a speed gear for bicycles, the combination with the frame, of a casing composed of two parts, 5^a and 5^b, the part 5^a being made fast to the frame bars and the part 5^b detachably connected with the part 5^a, three shafts, 9, 19 and 47, journaled in said casing, the shaft 9 being the crank shaft and journaled in the casing part 5^a, the casing being divided on the centre line of the shafts 19 and 47, a gear 10 mounted on the shaft 9, a pinion mounted on the shaft 19 and meshing with the gear 10, a gear 23 mounted on the shaft 19 to one side of the pinion, a gear mounted on the shaft 47 and meshing with the gear 23, and propelling rods connecting short cranks on the shaft 47 with short cranks on the hub of the rear wheel.

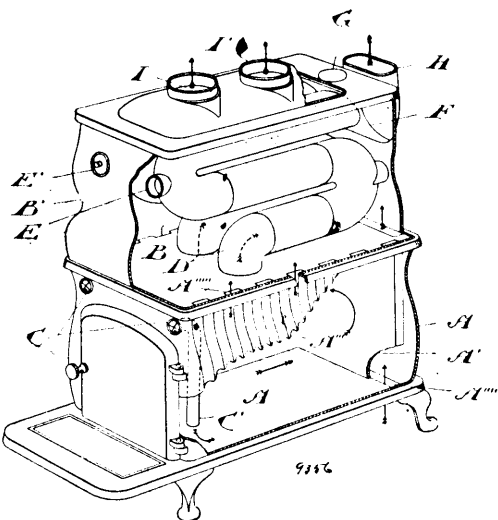
No. 59,352. Bicycle Support. (Support de bicycles.)



Pierre Gagnon, Quebec City, Canada, 19th March, 1898; 6 years. (Filed 2nd March, 1898.)

Claim.—1st. A bicycle support, comprising legs having a pivotal connection with the front fork of a bicycle, and means for imparting a vertical movement to said legs, substantially as described. 2nd. A bicycle support, comprising legs having a pivotal connection with the front fork of a bicycle, a frame mounted on the top bar of said bicycle, and means mounted in said frame, for imparting a vertical movement to said legs, substantially as described. 3rd. A bicycle support, comprising legs having a pivotal connection with the front fork of a bicycle, a frame mounted on the top bar of said bicycle, a plate mounted in said frame, and having a vertical movement therein, and connections between said plate and said legs, substantially as described. 4th. A bicycle support, comprising legs having a pivotal connection with the front fork of a

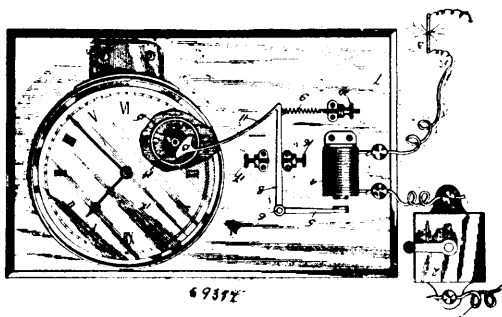
No. 59,356. Stove. (Poêle.)



Robert Wellington Biggar, Toronto, Ontario, Canada, 21st March, 1898; 6 years. (Filed 9th March, 1898.)

Claim.—1st. In a heating stove, the combination with the body of the stove provided with a false back to form an air passage, and smoke exits formed in the front half of the top of the stove, of a heating chamber provided with air inlets and containing retorted smoke flues communicating between the smoke exits and the smoke stack, and hot air outlets from the heating chamber, substantially as specified. 2nd. In a heating stove, the combination of the body of the stove provided with a false back to form an air passage into the heating chamber and smoke exits formed in the front half of the top of the stove, a down draft pipe and a damper located in the upper part of the stove, a hoisting chamber having curved sides and provided with air inlets, retorted smoke flues within the heating chamber communicating between the smoke exits and the smoke stack, and hot air outlets from the heating chamber, substantially as specified. 3rd. In a heating stove, the combination of stove A, with back A', and false back A'', to form a vertical air passage leading into the heating chamber B, the hot air heating chamber B, over the stove, having openings A³, along its sides, and curved sides B', the air damper C, and damper pipe C', the retorted smoke flues D, communicating between the smoke exits formed in the front half of the top of the stove, and the chamber F, with tea kettle hole G, the smoke stack H, leading from the chamber F, the hot air outlets I, and the clean-out holes E, provided with covers E', substantially as specified.

No. 59,357. Electric Meter. (Electromètre.)



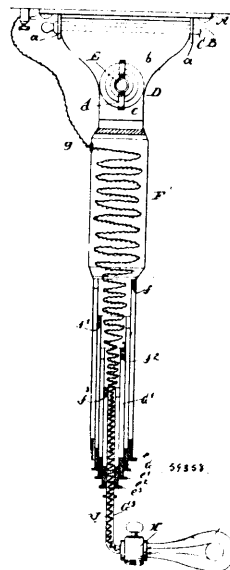
Charles C. Schumacher and Albert G. Zamel, Chicago, Illinois, U.S.A., 21st March, 1898; 6 years. (Filed 11th August, 1897.)

Claim.—1st. A device for the purpose described having in combination a recorder provided with a balance wheel, a pinion on said balance wheel, a toothed segment engaging said pinion, an armature connected with said segment, and a magnet for attracting said armature, substantially as set forth. 2nd. A device for the purpose described having in combination an electric circuit or supply conductor, a switch interposed therein, an electro-magnet interposed in said circuit between said switch and the point of consumption, an armature for said magnet, an arm projecting from said armature and carrying a toothed magnet, a recorder having a pinion with which said segment engages and means for holding said segment in engagement with said pinion when the magnet is de-energized, substantially as set forth. 3rd. A device for the purpose described, having in combination a recorder provided with a balance wheel, a pinion on

said balance wheel, a pivoted armature having an arm, a segment carried by said arm and engaging said pinion and having its face struck on an arc concentric with the arc described by said arm whereby it will move into engagement with and also beyond and out of engagement with said pinion, and a magnet for attracting said armature, substantially as set forth. 4th. A device for the purpose described having in combination a recorder provided with a balance wheel having a pinion, a pivoted armature having the arm 8, the adjusting screws on each side of said arm, a spring for forcing said armature away from said magnet, the arm carrying segment 13 engaging with said pinion, and the magnet 4, substantially as set forth.

No. 59,358. Electric Lamp Holder.

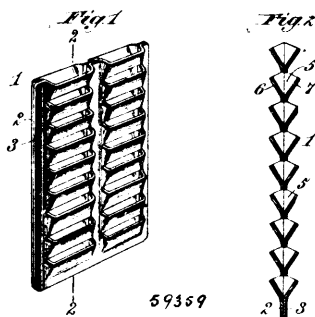
(Porte-lampe électrique.)



Eugene Conrad Kuenneth, Gustave Schreie, and Charles Jacob Kuenneth, all of Mount Olive, Illinois, U.S.A., 21st March, 1898; 6 years. (Filed 11th August, 1897.)

Claim.—1st. An extension holder for electric lamps, comprising a series of telescopic tubes, fillets between adjacent tubes, and annular springs on certain of the tubes, the spring of one being in frictional engagement with a surrounding tube, substantially as specified. 2nd. An extension holder for an electric lamp comprising a base plate supporting a pintle, an arm comprising a portion bent upon itself to form a sleeve to engage over the pintle, and a portion pivoted to said first named portion, a telescopic support carried by said arm, substantially as specified.

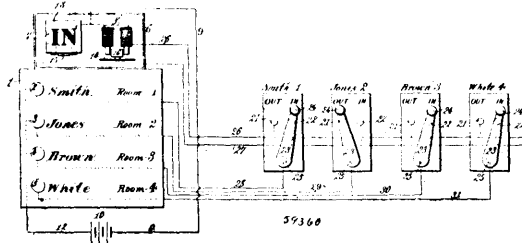
No. 59,359. Electrode. (Électrode.)



Gilbert Hart, Detroit, Michigan, U.S.A., 21st March, 1898; 6 years. (Filed 20th September, 1897.)

Claim.—An electrode for a secondary or storage battery, consisting of two similar sheets of metallic lead, each sheet having half-cells formed by walls integral with the said sheet, the side walls converging toward the latter from the open top of the trough to its bottom, the two plates being united with the half cells registering, adjacent series of said cells being separated by plane vertical portions of the united sheets, which are united when the two plates are brought together, substantially as described.

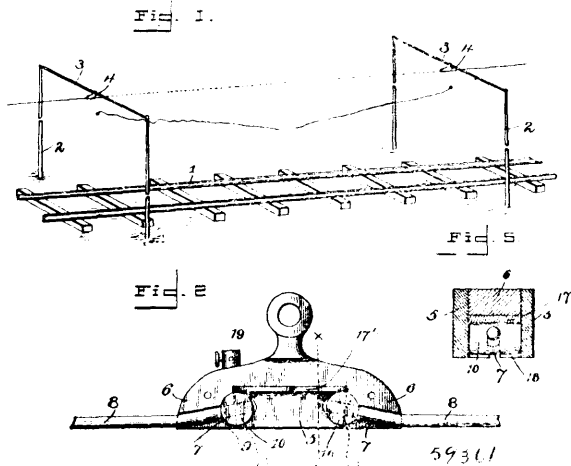
No. 59,360. Annunciator. (Annonceur.)



Edward Hopson Owen, Charles Nelson Williams, Fred Hamilton Donaldson, all of Garvanza, California, U.S.A., 21st March, 1898; 6 years. (Filed 20th September, 1897.)

Claim.—1st. In a signalling system, the combination with a suitable support of a plurality of pushes and push button contacts arranged upon said support and associated with marks, or words, which identify each one of a series of distant points, a series of separate wires, one from each push button being led to one of the distant points, a series of switches at said points, each switch consisting of a conducting arm, to the pivotal support of which one of the separate wires is led, and two contact pieces each of which is associated with a different character, or word, two independent wires each of which is common to the contact pieces associated with the same word or character, two series of branch wires, one series connected to one contact piece at each point and to one of the two wires and the other series to the second contact piece and second wire, a signalling apparatus having signals responsive to both the contacts pieces at the distant points and a source of electric energy, substantially as described. 2nd. In a signalling system, the combination with a suitable support of a plurality of pushes and push-button contacts, a series of separate wires, one from each push button to one of a series of distant points, a series of switches at said points each comprising a conducting arm to the pivotal support of which one of the separate wires is connected, two contact-pieces on each switch base with either of which the arm can engage, two or more independent wires having branch connections to all the contact-pieces on one side and the other to all those on the other side of the switch arm, two or more independent signalling devices each comprising an electro-magnet and a visual signal operated by it, the winding of each magnet being connected to one or the other of the independent wires, and a generator of electric energy connected to each of the push button contacts, substantially as described.

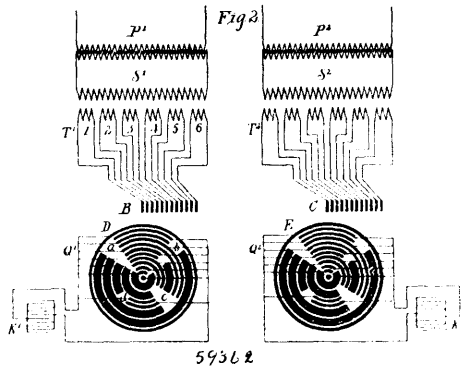
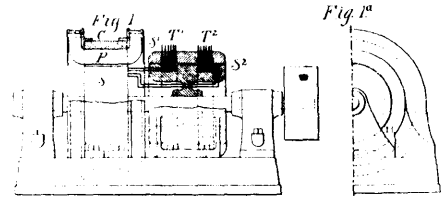
No. 59,361. Electric Conductor Wire Connector. (Connection de fil pour conduits électriques.)



Isaac Shultes, Martin, Michigan, U.S.A., 21st March, 1898; 6 years. (Filed 4th October, 1897.)

Claim.—1st. The herein described wire connector comprising the side pieces 5,5, the block 6, having an eye at its upper end for connection to a rod or span, and the wedging grooves in its under face, in combination with wedge pieces to which the ends of the wires are connected, said wedge pieces held within the grooves in the block by the strain or pull on the wires, and permitted to drop out of the grooves when the wire breaks, substantially as described. 2nd. A wire connector consisting of the side pieces 5,5, the block 6 provided with the grooves in its under face, the plate 17' spanning the space between the grooves, the wedge pieces in the grooves and the wires connected thereto, substantially as described.

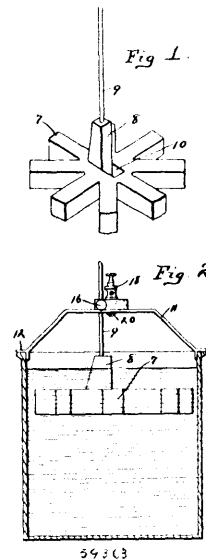
No. 59,362. Electric Motor. (Moteur électrique.)



Charles Schenck Bradley, Avon, New York, U.S.A., 21st March, 1898; 6 years. (Filed 26th October, 1897.)

Claim.—1st. An alternating current induction motor having a revolving element inductively related to a rotary magnetic field and inductively related also to an auxiliary stationary circuit including current regulating devices. 2nd. An alternating current induction motor having a field core provided with a rotary field winding, a rotary armature electrically connected with the revolving primary coil of a transformer, and a stationary secondary coil of the transformer connected with a regulating switch. 3rd. An alternating current induction motor having a stationary element provided with a rotary field winding and rotary element in fixed connection with a polyphase circuit including the primary coils of a transformer, and stationary secondary coils for the transformer including devices for regulating the capacity inductance product of the circuit including it.

No. 59,363. Battery Zinc. (Zinc de batteries)

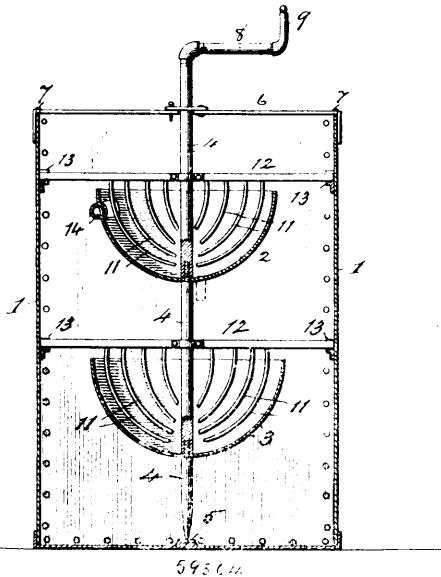


Dora Ogden, Columbus, Indiana, U.S.A., 21st March, 1898; 6 years. (Filed 28th October, 1897.)

Claim.—1st. The combination of an electrode, means carried thereby for interlocking with a similar electrode, and means by which two such electrodes may be independently held in a cell, the arrangement being such that one electrode will lie immediately beneath the other. 2nd. As an article of manufacture, an electrode have a lug formed on one surface thereof to one side of the centre, and a recess or opening formed in said electrode upon the opposite

side of the centre, the arrangement being such that the lug of a similar electrode may be received in said recess, and means by which each electrode may be independently held in a cell. 3rd. As an article of manufacture, an electrode having a lug formed on one surface thereof on one side of the centre, an opening formed through said electrode on the opposite side of the centre, the arrangement being such that the lug of a similar electrode may be received in said opening, and a connecting-rod, of material other than the material of the electrode, passing into the lug and electrode, the arrangement being such that each electrode may be independently suspended by said rod. 4th. As an article of manufacture, an electrode having a lug formed on one surface thereof, an opening formed through said electrode, the arrangement being such that the lug of a similar electrode may be received in said opening, and a connecting-rod secured to said lug, the arrangement being such that each electrode may be independently suspended by said rod. 5th. The combination with a pair of electrodes each provided with means for engaging a similar electrode and each provided with a connecting-rod, a saddle adapted to extend across the mouth of a cell, an adjustable block carried by said saddle, means carried by said block for engaging the connecting-rod of each electrode, and a binding-post carried by said block, substantially as described. 6th. The combination with a pair of electrodes each provided with means for engaging the other and each provided with a connecting-rod, of a saddle adapted to extend across the mouth of a cell, and means carried by said saddle for engaging each of said connecting-rods, substantially as and for the purpose set forth. 7th. The combination with a pair of electrodes each provided with means for engaging a similar electrode and each provided with a connecting-rod, of means for engaging each of said rods and thereby independently suspending each electrode in a cell. 8th. The combination with a pair of electrodes each provided with means for suspending it in a cell, one of said means passing through the other electrode, of means for engaging said suspending means and thereby holding the electrodes independently in the cell, one above the other. 9th. As an article of manufacture, an electrode, and a connecting-rod, of material other than said electrode, extending therein and intimately connected therewith.

No. 59,364 Gold-Washing Apparatus.
(Appareil à laver l'or.)

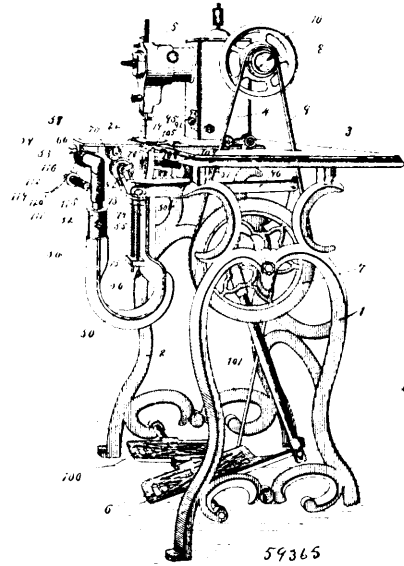


Felix Kalm, Laredo, Texas, U.S.A., 21st March, 1898; 6 years.
(Filed 8th November, 1897.)

Claim. 1st. The rotatable basin, having a discharge pipe which opens on the inner side and near the top of the same, and water passage arranged exteriorly and communicating with such pipe, for aiding the centrifugal outflow of material, by induction, as shown and described. 2nd. In a centrifugal gold-washer, the combination with the tank and one or more basins adapted to rotate therein, of rakes composed of curved wires projecting into said basins, detachable bars from which the rakes are pendent, supports for the bars attached to the tank, and a removable spindle and top bar 1, as shown and described. 3rd. In a portable gold-washer, the combination with the tank and contained basin, of a rake adapted to work in the latter, a transverse bar supported removably on the sides of the tank and carrying said rake, and a rotatable spindle connected with the said bar and carrying the aforesaid basin, as shown and described, whereby the basin, rake, bar and spindle form a connected apparatus which is adapted to be readily inserted in or

removed from the tank, as specified. 4th. An improved apparatus for the use specified, which comprises the heating tanks 1^a, the washer 1, and connections between them, as shown and described.

No. 59,365. Sewing Machine. (Machine à coudre.)



Joseph Arbes, New York, State of New York, U.S.A., 21st March, 1898; 6 years. (Filed 18th February, 1898.)

Claim.—1st. A sewing-machine, comprising stitch-forming mechanism, a cloth-supporting plate consisting of two parts, separated in the path of the needle and forming a transverse opening extending from side to side of the machine, the supports for said cloth-plate and the other operative parts of the machine being disposed to permit the free and unobstructed insertion of the work from either side of the machine, and mechanism for feeding the work transversely to and into said opening, substantially as set forth. 2nd. In a sewing-machine, the combination of an approximately U-shaped frame, with suitable stitch-forming mechanism, a cloth-supporting plate, formed in two separate parts mounted respectively upon the arms of said U-shaped frame, and the two parts of the plate being supported by said frame to form a free and unobstructed cloth-opening or slot between them in the path of the needle, which cloth-opening extends transversely to the direction of feed of the cloth and from side to side of the machine to permit insertion of the cloth from either side, and suitable cloth-feeding mechanism, substantially as set forth. 3rd. In a sewing-machine, the combination with suitable stitch-forming mechanism, of a cloth-supporting plate formed in two parts, an approximately U-shaped supporting and connecting frame arranged at one side of the machine, and having arms extending toward the plane of feed, the arms of said U-shaped frame being connected respectively with the two parts of the cloth-supporting plate and supporting said parts in proper relation to form a free and unobstructed cloth opening between them in the path of the needle extending transversely to the direction of cloth-feed from side to side of the machine, and suitable cloth-feeding mechanism, substantially as set forth. 4th. In a sewing-machine, the combination with stitch-forming mechanism, a machine-table, and a machine-supporting frame, of an auxiliary approximately U-shaped frame having one of its arms secured to the main supporting-frame, an auxiliary cloth-plate supported upon the other arm of said U-shaped frame to form a part of the machine-table with a free and unobstructed transverse opening between the cloth-plate and machine-table, and suitable means for feeding cloth over said cloth-plate into the cloth-opening, as set forth. 5th. In a sewing-machine, the combination with stitch-forming mechanism, and a machine-supporting frame, of an auxiliary approximately U-shaped frame arranged at one side of the machine and having arms extending toward the plane of feed, an auxiliary feed-plate or cloth-plate supported upon the other arm of said auxiliary frame adjacent to and forming part of the machine-table, the machine-table and cloth-plate being separated to form a cloth-opening between them in the path of the needle, and suitable cloth-feeding mechanism, substantially as set forth. 6th. In a sewing-machine, the combination with stitch-forming mechanism, a machine-table, and a machine-supporting frame, of an auxiliary U-shaped frame supported upon the machine-frame by one of its arms, a vertically-adjustable arm mounted upon the other arm of said U shaped frame and carrying an auxiliary cloth-plate forming a part of the machine-table, whereby said auxiliary cloth-plate may be adjusted vertically with relation to the machine-table, and suitable cloth-feeding mechanism, as set forth. 7th. In a sewing-machine, the combination with stitch-forming

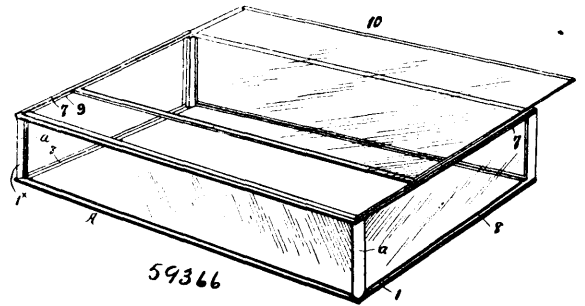
mechanism, a machine table, and a machine-supporting frame, of an auxiliary approximately U-shaped frame secured to the machine-supporting frame, a vertically-adjustable arm mounted upon said auxiliary frame, an auxiliary cloth-plate mounted upon said vertically-adjustable arm and supported thereby adjacent to the machine-table with a transverse unobstructed cloth-opening extending between them from side to side of the machine, means for adjusting the auxiliary plate toward and away from the stitch-forming mechanism, and a suitable cloth-feeding device, as set forth. 8th. In a sewing-machine, the combination of stitch-forming mechanism, a sewing-machine table, an adjustable cloth-plate projecting toward the edge of the machine-table and forming between them a cloth-opening in the path of the stitch-forming mechanism, extending from side to side transversely of the machine, means for adjusting the cloth-plate toward and away from the stitch-forming mechanism, and suitable feeding mechanism constructed to feed cloth over the adjustable plate around its end and down into the cloth-opening, substantially as set forth. 9th. A sewing-machine comprising stitch-forming mechanisms, a cloth-supporting plate consisting of two parts separated in the path of the needle and forming a transverse opening extending from side to side of the machine, a guideroll journaled in one of said parts, and co-operating feed-rolls for feeding cloth over and under said part of the feed-plate in which the guide-roll is journaled, causing the cloth to pass toward and away from the point of stitching, substantially as set forth. 10th. A sewing-machine comprising stitch-forming mechanism, a cloth-supporting plate consisting of two parts separated in the path of the needle and forming a transverse opening extending from side to side of the machine, a guide-roll journaled in the forward edge of one of said parts in advance of the plane of the needle of the stitch-forming mechanism, and means for feeding the cloth over and under said guide-roll and part of supporting-plate in which it is journaled, toward and away from the point of stitching, substantially as set forth. 11th. In a sewing-machine, the combination of stitch-forming mechanism, a feed or cloth plate projecting toward the point of stitching, a rubber-faced feed-roll journaled beneath the feed-plate, a co-operating rubber-faced feed-roll journaled in a movable spring-pressed support, and means for intermittently operating said feed-rolls, substantially as and for the purpose set forth. 12th. In a sewing machine, the combination of a switch-forming mechanism, a feed-plate projecting toward the point of stitching, a feed-roll journaled beneath the feed-plate, a movable head or support mounted below said feed-roll, a co-operating feed-roll journaled in said movable head, springs for holding said head in elevated position, an operating-lever engaging said head for depressing it and throwing the feed-rolls apart, and means for operating the feed-rolls, substantially as and for the purpose set forth. 13th. In a sewing-machine, the combination of stitch-forming mechanism, a feed-plate projecting toward the point of stitching, a suitable vertically-movable spring-pressed head or support mounted below the feed-plate, a feed-roll journaled in said head or support, a co-operating feed-roll journaled in stationary bearings, a presser-foot, means for elevating and lowering the presser-foot, means for intermittently operating the feed-rolls when the presser-foot is elevated, and means for depressing the movable head or support to throw the feed-rolls apart, substantially as set forth. 14th. In a sewing-machine, the combination of stitch-forming mechanism, a feed-plate projecting toward the point of stitching, a feed-roll journaled beneath the feed-plate, a vertically-movable head carrying a second feed-roll, springs moving said head upwardly, a lever engaging said head, and a foot-lever or treadle connected with said lever, means for operating the feed-rolls, substantially as set forth. 15th. In a sewing-machine, the combination of stitch-forming mechanism, a pair of feed-rolls adapted to engage and feed a piece of cloth between them, a ratchet-wheel carried by one of the feed-rolls, an oscillatory arm carrying a pawl engaging said ratchet-wheel, a cam, a lever connected with said oscillatory arm and engaging and operated by said cam, an arm projecting from said lever, and an adjustable notched plate adapted to engage said arm for regulating the stroke of the pawl, substantially as set forth. 16th. In a sewing-machine, the combination of stitch-forming mechanism, a feed-plate projecting toward the point of stitching, a spring-actuated roller beneath the feed-plate, a tape wound upon said roller and provided with cloth-engaging means, said tape being adapted to be passed around the end of the feed-plate and attached to the cloth and feed it over and around the end of the plate, substantially as and for the purpose set forth.

No. 59,366. Show Case. (Caisse d'etalage.)

Adrian Albert Chittenden, Alcola, Illinois, U.S.A., 22nd March, 1898; 6 years. (Filed 24th February, 1898.)

Claim.—1st. A show-case, comprising front corner-posts formed with T-shaped grooves therein arranged at right angles to each other, rear corner-posts formed with T-shaped grooves therein, channel-bars connecting the corner-posts at their bases, and adapted to be attached to a base for the case, and metal bound glasses having their end pieces formed with T-shaped flanges to engage and lock in the grooves of the posts and their bottom bindings to act in the channels of the channel-bars of the base thereof. 2nd. A show case, comprising corner-posts formed with vertical T-head slots, rectangular metal frame having end pieces formed with T-heads to engage in the slots of the corner-posts, and panes of glass secured in

metal-frames. 3rd. A show case, comprising front corner-posts formed with T-shaped grooves therein arranged at right angles to



each other, channel-bars connecting the corner-posts at their bases, upper bar for the end frames formed with inwardly projecting flanges provided with grooves 9, a sliding top disposed in the said grooves, a door-frame hinged to the back of the case, and a mirror in the door-frame, substantially as set forth. 4th. A show case, comprising rectangular frames of glass, T-head metal bindings on the ends of the glasses, a metal binding on the upper edge of the glasses, a separable metal binding on the lower edges of the glasses, and corner-posts formed with T-grooves to take in the T-heads of the bindings. 5th. A show case, comprising rectangular frames of glasses, T-head metal bindings on the ends of the glasses, a metal binding on the upper edge of the glasses, a separable metal binding on the lower edge of the glasses, corner-posts formed with T-grooves to take in the T-heads of the bindings, and channel-iron connections between the bases of the posts in which the lower edges of the metal bindings rest.

No. 59,367. School Chart. (Carte d'ecole.)



Louise Snyder, Minneapolis, Minnesota, U.S.A., 22nd March, 1898; 6 years. (Filed 28th February, 1898.)

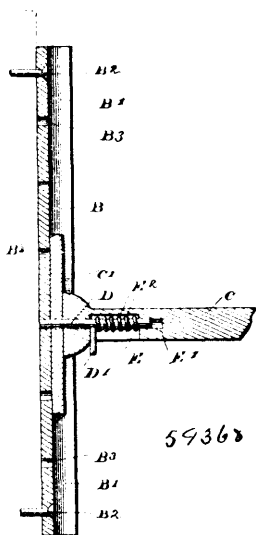
Claim.—1st. A chart or book, comprising a plurality of slitted sectional leaves bound together at one edge, and containing words or reading matter, the slit or slits of one leaf registering with those of all the other leaves, whereby when one or more sections of one leaf are turned up the reading matter thus exposed on the section or sections of the underlying leaf will be in reading registration with the matter contained on the unturned portion of the leaf first mentioned. 2nd. A chart or book, comprising a plurality of leaves containing reading matter and bound together at their upper ends, each of said leaves being slitted or divided vertically or cross-wise of the reading-lines to form sections so that any section of one leaf may be turned independently of the other sections of the same leaf to bring the reading matter of one or more of said other sections into reading registration with the reading matter on the leaf-section below said turned or raised section. 3rd. As an article of manufacture, a chart or book comprising one or more entire or undivided leaves containing words or symbols, and a plurality of slitted or sectional leaves, all of said leaves being bound together at their top edge, and said slitted leaves containing words or reading matter, the slit or slits of one leaf registering with those of all the other slitted leaves, whereby when one or more sections of one slitted leaf are turned up the reading matter thus exposed on the section or sections of the underlying leaf will be in reading registration with the matter contained on the unturned portion of the slitted leaf first mentioned, substantially as described.

No. 59,368. Foot Rest. (Appui-pieds.)

Thomas B. Criddle, Waxahachie, Texas, U.S.A., 22nd March, 1898; 6 years. (Filed 4th February, 1898.)

Claim.—1st. The combination with a desk, chair, bench or other seat of a vertically adjustable foot rest, substantially as shown and described. 2nd. The combination with a desk, chair, bench or other seat, of a foot rest laterally adjustable to the width of a chair or desk or the length of a bench, substantially as shown and described. 3rd.

The combination with a desk, chair, bench or other seat, of a foot rest therefor, and means for adjusting said foot rest in variable



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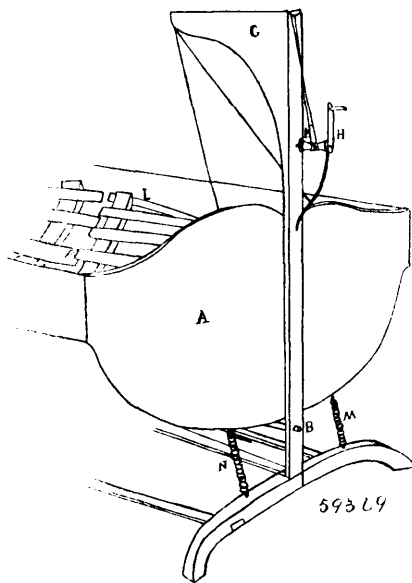
positions both vertical and lateral, substantially as shown and described. 4th. The combination with the supporting standards of a desk, seat or bench, of vertically placed slideways secured thereon, of a foot rest adapted to be supported within said slideways, spring impelled plunger dogs in each end of the foot rest adapted to be engaged by vertically placed apertures in said slideways, whereby the said rest may be retained at variable heights between said standards, all substantially as and for the purpose herein set forth and shown. 5th. The combination with a desk, chair or bench, of vertical slideways formed upon the inner surface thereof, a foot rest adapted to extend from one to the other of said slideways and supported therein, spring impelled plunger dogs secured within the ends of said foot rest, the projecting ends of said dogs adapted to enter and be retained within apertures formed in vertical alignment in said slideways, and means for drawing said plunger dogs backwardly out of engagement with said apertures, the whole constructed and adapted for operation, substantially as herein shown and set forth. 6th. In a desk, chair, bench, or seat, the combination with the supporting ends or standards thereof, of vertical slideways secured to or formed upon the inner surface of said ends or standards, a foot rest extending between said slideways, sliding plates secured upon the ends of said foot rest adapted to rest within said slideways, plunger dogs secured within each end of said foot rest and projected through each of said sliding plates, spiral springs arranged so as to impel outwardly said plunger dogs into engagement with apertures formed in vertical alignment in said slideways when registering therewith and a lug or finger projecting at right angles from said plunger dogs for drawing backwardly the same and releasing them from engagement with said apertures, the whole constructed, arranged and adapted for operation, substantially as herein shown and described. 7th. The combination with the end supports or standards of a desk, chair, bench or seat, of vertical slideways formed or secured upon their inner surfaces and provided with a series of slots in vertical alignment with each other, of a foot rest composed of two telescopic sections one sliding within or upon the other, the outer ends of said sections adapted to encircle or enclose said slideways, sliding dogs or plates secured upon the under surface of each of said sections adjacent to their outer ends, said dogs or plates adapted to be engaged by said slots when registering therewith, springs for impelling outwardly said dogs or plates into such engagement, and means for drawing said dogs or plates backwardly out of such engagement, all substantially as herein shown and set forth. 8th. The combination with a school or other desk or seat therefor, of a telescopic foot rest with means for the vertical adjustment of the same, substantially as herein shown and described. 9th. A longitudinally telescopic foot rest for desks, seats, chairs, or benches, and means for adjusting said rest in variably vertical positions, all substantially as herein shown and described.

No. 59,369. Invalid's Bed. (Lit d'invalides.)

Tobias Alley, Cambellford, Ontario, Canada, 22nd March, 1898; 6 years. (Filed 8th March, 1898.)

Claim.—1st. The combination of the bed A, with the axis B and lever C, spring catch D, and plates E, and spring coils M and N,

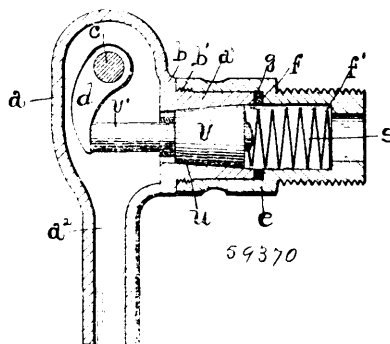
substantially as and for the purposes hereinbefore set forth. 2nd. The combination of the upright G and crank, windlass H and dog



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and ratchet I, and ropes O with the head section of the bed L, and hinges P, substantially as and for the purpose hereinbefore set forth.

No. 59,370. Faucet. (Fausset.)



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Elijah Upson Scoville, Manlius, New York, U.S.A., 22nd March, 1898; 6 years. (Filed 17th November, 1897.)

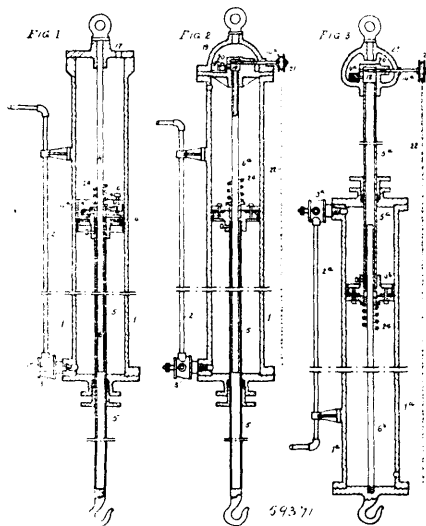
Claim.—1st. The combination of the faucet body *a*, formed with a valve-seat in its receiving portion *a'*, and with screw-threads on the exterior of said portion, the outwardly opening valve *v*, the coupling *c* provided with an internally screw-threaded portion and connected thereby to said body portion and provided in its interior with shoulders *f* and *f'*, the packing-ring *g* interposed between the shoulder *f*, and end of the body portion *a'*, the spring *s* interposed between the shoulder *f'*, and exterior of the valve and a manipulative valve-opener connected to the faucet and forcing the valve outward from its seat, as set forth. 2nd. The improved faucet, consisting of the body *a*, having the inlet portion *a'*, provided with the inwardly tapering valve-seat *u*, and with the shoulder *b*, and screw-threads on the exterior, the coupling *c* provided with screw-threads *e'*, and shoulders *f, f'*, the outwardly opening valve *v*, the packing *g*, spring *s*, the shaft *c* journaled in the faucet body at right angles to the inlet, and the lever *d*, and handle *h* attached to said shaft, substantially as set forth and shown.

No. 59,371. Air Hoist. (Ascenseur pneumatique.)

William R. Ridgway, Coatesville, Pennsylvania, U.S.A., 22nd March, 1898; 6 years. (Filed 25th February, 1898.)

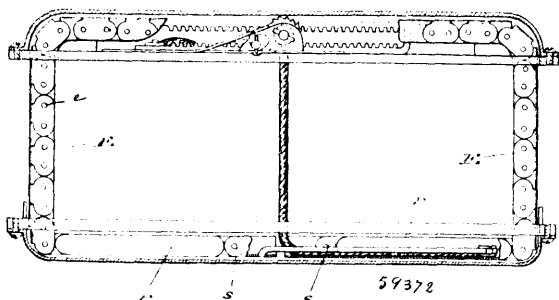
Claim.—1st. A fluid actuated hoist having a cylinder with piston and piston rod, a liquid chamber with contracted outlet through which the liquid is forced as the moving element of the hoist rises, and a chamber which receives the liquid from said contracted outlet and retains it until it is returned substantially as specified. 2nd. A fluid actuated hoist having a cylinder with piston and piston rod, and a liquid chamber with contracted outlet through which the liquid is forced as the moving element of the hoist rises, and a valve inlet through which the liquid flows into the chamber as the moving element of the hoist descends, substantially as specified. 3rd. A fluid actuated hoist having a piston and piston rod, a liquid chamber

with contracted outlet through which the liquid is forced as the moving element of the hoist rises, said outlet being combined with



an adjustable valve whereby its effective area may be regulated, and a chamber which receives the liquid from said contracted outlet and retains it until it is returned, substantially as specified. 4th. A fluid actuated hoist having a cylinder with piston and hollow piston rod, the latter communicating through a contracted opening with a liquid chamber or reservoir, in combination with a rod carried by the cylinder and projecting into said hollow piston rod substantially as specified. 5th. A fluid actuated hoist in which are combined a cylinder with piston and hollow piston rod, a liquid chamber carried by the fixed element of the hoist, and communicating through a contracted opening with said hollow piston rod, whereby as the moving element of the hoist rises, liquid will be forced from the hollow piston rod through said contracted opening substantially as specified. 6th. A fluid actuated hoist having a cylinder with piston and hollow piston rod, a liquid chamber carried by the fixed element of the hoist and communicating through a contracted opening with said hollow piston rod and a valve adapted to regulate the effective area of said contracted passage, said valve having a stem projecting through the casing of the liquid chamber so as to be operated from the outside of the same, substantially as specified. 7th. A fluid actuated hoist having a cylinder with piston and hollow piston rod, a hollow rod depending from the top of the cylinder and projecting into said hollow piston rod, and a liquid chamber in the top of the cylinder communicating through a contracted opening with said hollow rod substantially as specified.

No. 59,372. Temporary Binder. (Relieure temporaire.)

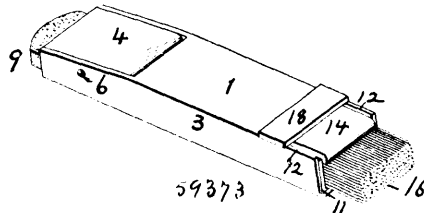


Hermann H. Hoffman, Chicago, Illinois, U.S.A., 22nd March, 1898; 6 years. (Filed 27th December, 1897.)

Claim.—1st. A binder comprising relatively movable base and top members, and flexible binding means between the two members, said flexible binding means carrying casings adapted to receive and protect the rear side edges of the leaves to be inserted in the binder, substantially as specified. 2nd. A binder comprising relatively movable base and top members and flexible vertical casings located between said members and having recesses constructed to receive and protect lateral projections on the rear side edges of the leaves to be inserted in the binder, substantially as specified. 3rd. A binder

comprising relatively movable base and top members, and flexible binding means between the two members adapted to engage the leaves to be inserted in the binder, with means carried by one of said members for operating the flexible binding means, substantially as described. 4th. A binder comprising relatively movable base and top members, and flexible binding means between the two members adapted to engage the leaves to be inserted in the binder, with means carried by one of said members for operating the flexible binding means, and means for locking the same in any position, substantially as described. 5th. A binder comprising relatively movable base and top members, with means for drawing the same towards and from each other, comprising flexible chains adapted to engage the leaves to be inserted in the binder, means for operating the chains, and a casing within which the unused portions of the chains may be stored, substantially as described. 6th. A binder comprising top and base members relatively movable, and means for engaging the leaves to be inserted between the members, said means comprising a series of pivoted links with mechanism for operating the same, substantially as specified. 7th. A binder comprising the top and base members relatively movable, flexible links provided with means for engagement with the leaves to be inserted in the binder, and a rotating wheel provided with projections in operative engagement with said links, substantially as described. 8th. A binder comprising top and base members relatively movable, flexible links provided with means for engagement with leaves to be inserted in the binder, a rotating wheel provided with projections in operative engagement with said links, and means for locking said wheel against rotation, substantially as described. 9th. A binder comprising flexible links adapted to engage the leaves to be inserted in the binder, means for engaging said links to move the same, and a guiding device for guiding and tumbling said links, substantially as specified. 10th. A binder comprising relatively movable top and base members, a rotating shaft carrying a toothed wheel and journaled on one of said members, flexible chains for guiding and holding the rear side edges of the leaves to be bound, each of said chains being provided with a rack engaging one the upper and one the lower periphery of said wheel, substantially as specified. 11th. A temporary binder comprising relatively movable base and top pieces, flexible chains, each adapted to receive and protect the rear side edges of the leaves to be bound in the binder, and a toothed roller engaging and operating the flexible chains, substantially as specified. 12th. A binder comprising relatively movable base and top pieces, a casing carried by the upper piece, a flexible chain secured to the base piece and extending upwardly into the casing, a rack bar secured to the upper end of each of said chains, one rack bar having downwardly and the other upwardly projecting teeth, and a toothed roller engaging said teeth for moving the rack simultaneously in opposite directions, substantially as described. 13th. A binder comprising base and top pieces relatively movable towards and from each other and each provided with a casing, flexible chains extending between the top and base pieces, and means for manipulating the said chains, whereby they may be stored in the top and bottom casing as desired, substantially as described. 14th. A binder comprising top and bottom members relatively movable towards and from each other, flexible chains extending between the two and adapted to receive and protect the rear side edges of the leaves to be inserted in the binder, means for manipulating the said chains, and a centrally flexible cord or rope also engaging recesses in the leaves, and means for extending or relaxing said rope as the top and bottom members are moved relatively away from or towards each other, substantially as described. 15th. In the herein described binder, the flexible chains and the flexible cord movable by the same mechanism which move the chains, substantially as described. 16th. In a temporary binder having top and bottom members, an extensive back removably secured to said members substantially as described. 17th. As an extension back for temporary binders, a centrally recessed member and upper and lower members telescoping within the recesses of said central member, substantially as described.

No. 59,373. Eraser. (Grattoir.)

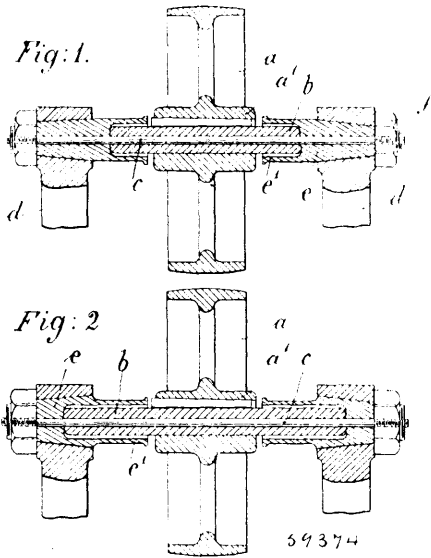


Augustus Conrad Ekholm, Rockford, Illinois, U.S.A., 22nd March, 1898; 6 years. (Filed 28th February, 1898.)

Claim.—1st. The combination of a holder, one end being open, having two opposite edges provided with lips, a brush located within the holder, a cap and a link connection between the brush and cap, the cap held in place by the lips of the holder. 2nd. The combination of a holder, one end being open, having two opposite edges provided with lips, one face of the holder provided with two lengthwise slots terminating in enlargements, a brush located with the

holder, a cap, a linked connection between the brush and cap whereby the cap is held by the lips of the holder when the brush is not in use and capable of holding the brush extended when in use. 3rd. The combination of a holder, having a portion of its top cut away, a jaw having a pivotal connection with the holder and closing the cut away portion and having its inner end turned downward, a spring located loosely within the holder having one end resting upon the bottom of the holder and its upper end resting against the inner end of the pivoted jaw adjacent to its down turned end.

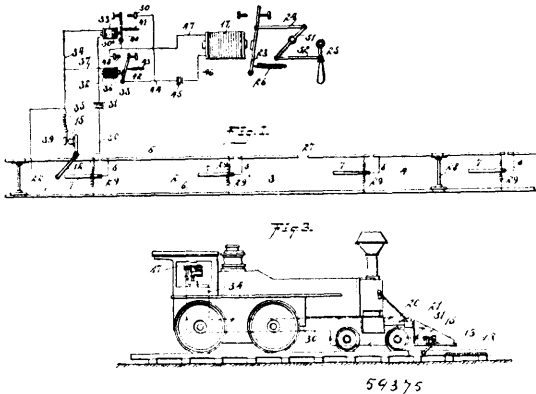
No. 59,374. Bearings for Rotary Discs, Wheels, etc.
(*Coussinet pour disques, roues, etc.*)



Hermann Ganswindt, Mariendorfer Weg, Scheneberg near Berlin, Empire of Germany, 22nd March, 1898; 6 years. (Filed 5th March, 1898.)

Claim.—An improved bearing for rotary discs, wheels and the like, consisting of a sleeve or hub firmly connected with the disc or wheel and threaded on a wire shaft of small sectional area, the ends of which are firmly secured to sleeves or blocks mounted in fixed brackets, the ends of the sleeve or hub of the rotary body being surrounded by bell shaped casings of the blocks or supports of the wire shaft, substantially as described and shown in the drawings.

No. 59,375. Train Controlling Device.
(*Appareil pour controller les trains.*)

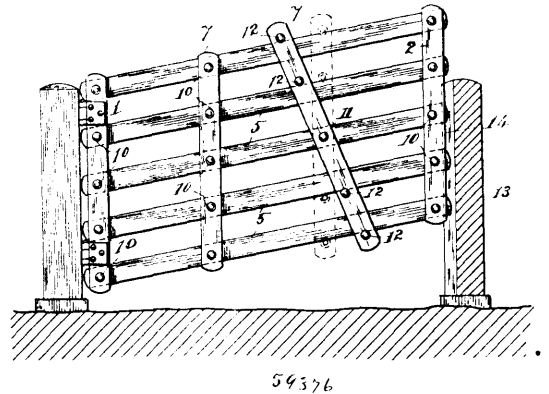


Christopher A. Shea, Milton, Massachusetts, U.S.A., 22nd March, 1898; 6 years. (Filed 1st March, 1898.)

Claim.—1st. In an automatic train-controlling device, the combination of a train circuit consisting of a battery, a resistance and an electro-magnet, a track circuit consisting of the two rails of the track, resistance coils connecting opposite rails, and a short auxiliary contact rail connected to one of the track rails, the contact lever carried by the train and adapted to cut in the train circuit through the track circuit, and electro-magnet mechanism carried on the train and connected with the air-brake valve lever, and adapted by the opening or short-circuiting of the train or track circuit to operate the brakes,

substantially as specified. 2nd. In an automatic train-controlling device, the combination of a closed train circuit consisting of a battery, a resistance and two electro-magnets, one of which is operated by an increase of current and the other by a decrease of current, a track circuit consisting of the two rails of the track, a resistance connecting opposite rails, and a short auxiliary contact rail connected to one of the track rails, a contact lever carried by the train and adapted to cut in the train circuit through the track circuit, and electro-magnetic mechanism carried on the train and connected to the air-brake valve-lever, and adapted by the opening or short-circuiting of the train or track circuit to operate the brakes and stop the train, substantially as specified. 3rd. In an automatic train-controlling device, the combination of a train circuit consisting of a source of electricity, a resistance, and electro-magnetic mechanism operated by an increase of current and also by a decrease of current, a track circuit consisting of the two rails of the track, a resistance connecting opposite rails, a short auxiliary contact rail connected to one of the track rails, a contact lever carried by the train and adapted to cut in the train circuit through the track circuit, and an electro-magnet on the train and connected with the air-brake valve-lever and adapted by the opening or short-circuiting of the train or track circuit to operate the brakes and stop the train, substantially as specified. 4th. The combination herein described, of a closed train circuit consisting of a battery, a resistance and electro-magnetic mechanism operated by an increase or a decrease of current, a track circuit consisting of the rails of the track, a resistance connected thereto, and a contact rail connected to one of the track rails, and a contact arm carried by the train and adapted to cut in the track circuit through the train circuit, substantially as specified.

No. 59,376. Gate. (Barrière.)



William Dunn, Grindon, Northampton, Great Britain, 22nd March, 1898; 6 years. (Filed 24th February, 1898.)

Claim.—1st. A gate consisting of two vertical end pieces, each comprising two parallel bars, horizontal bars having their ends pivoted and held between the end pieces, two or more vertical tie-pieces each comprising two parallel bars pivoted to and retaining the horizontal bars between them, and one of said vertical tie-pieces pivoted to one of said horizontal bars only, all substantially as and for the purposes hereinbefore set forth and illustrated in the drawing hereunto annexed. 2nd. A gate consisting of two vertical end piece, horizontal bars having their ends pivoted within said grooves, two or more vertical tie-pieces each comprising two parallel bars pivoted to and retaining the horizontal bars between them, and one of said vertical tie-pieces pivoted to one of said horizontal pieces only, all substantially as and for the purposes hereinbefore set forth and illustrated in the drawings hereunto annexed. 3rd. The combination with a gate constructed substantially as hereinbefore described and claimed, a gate-post having a longitudinal groove in its face to receive the end piece of the gate and retain it in its closed position as hereinbefore described and illustrated in the drawings hereunto annexed.

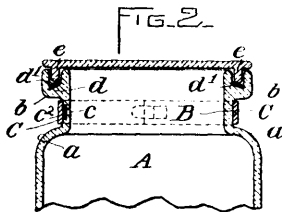
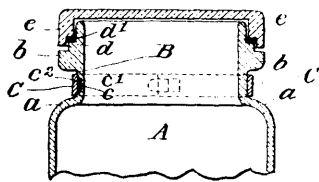
No. 59,377. Jar Closure. (Fermature de jarres.)

Frederick Joynson, Heatherlea, Penketh, and William Harrison, 196 Padgate Lane, both in Warrington, Lancaster, England, 22nd March, 1898; 6 years. (Filed 2nd February, 1898.)

Claim.—1st. The combination of a jar having its mouth and cover constructed in the manner severally set forth in reference to and shown respectively in Figs. 1, 2, 3, 4 and 5 and adapted to be hermetically closed by a washer interposed between said cover and mouth as described, a plain cylindrical neck pierced with a hole, a plug adapted to fit said hole, and an encircling clip securing same thereon, all substantially as set forth. 2nd. A pressure adjusting

appliance for jars during the process of cooking contents and closing, consisting of pressure plate P, with spindle O, in combination with

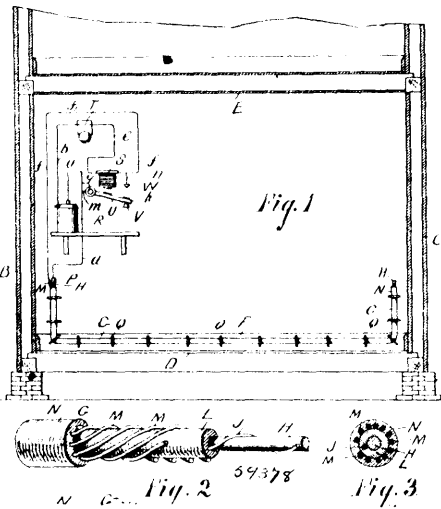
electric wire, a fusible metal or compound of metal round and about the core-wire, an insulating material over said fusible metal, an



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spring R, nut N, yoke M, legs m and hand operating arms m', substantially as shown for the purpose specified.

No. 59,378. Electric Fire Alarm Cable System.
(*Système de câble pour avertisseurs électriques d'incendie.*)



59378

John Dumcklee Gould, Brooklyn, and Henry Augustus Reed, Newark, New Jersey, both in the U.S.A., 22nd March, 1898; 6 years. (Filed 2nd August, 1897.)

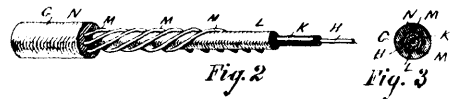
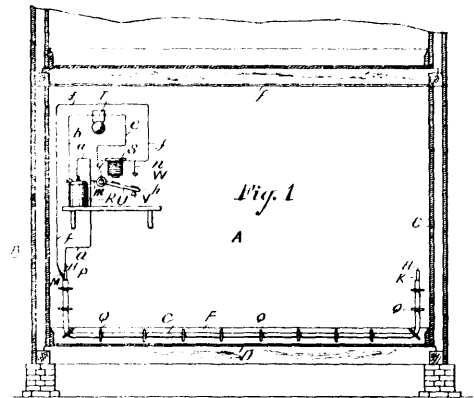
Claim.—1st. An electric cable or conductor for electric fire or other alarm systems, composed as follows, a central wire of fusible metal or compound of metal, an electric wire wound around said fusible wire, an insulating material over the two wires, an electric wire wound upon the insulating material and an insulating material covering the whole. 2nd. An electric cable or conductor, for electric fire or other alarm systems, composed as follows, a central wire of fusible metal or compound of metal, an insulating material over said fusible metal, a series of electric wires wound upon the insulating material, and an insulating material covering the whole. 3rd. An electric cable or conductor for electric fire or other alarm systems, composed as follows, a central wire of fusible metal or compound of metal, an electric wire wound around said fusible wire, an insulating material over the two wires, a series of wires wound upon the insulating material, and an insulating material covering the whole.

No. 59,379. Electric Fire Alarm Cable System.

(*Système de câble pour avertisseurs électriques d'incendie.*)

John Dumcklee Gould, Brooklyn, and Henry Augustus Reed, of Newark, New Jersey, both in the U.S.A., 22nd March, 1898; 6 years. (Filed 2nd August, 1897.)

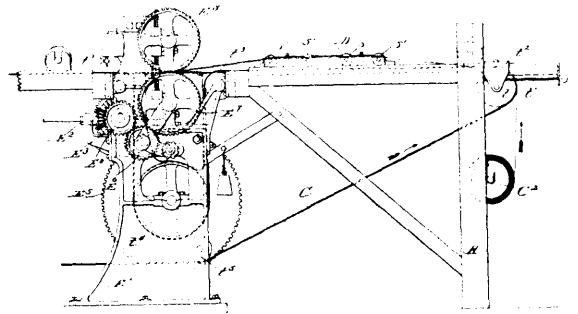
Claim.—1st. An electric cable or conductor for electric fire or other alarm systems composed of a core-wire of copper or other



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electric wire wound upon the insulating material, and an insulating material covering the whole. 2nd. An electric cable or conductor for electric fire or other alarm systems composed of a core-wire of copper or other electric wire, a fusible metal or compound of metal round and about the core-wire, an insulating material over said fusible metal, a series of electric wires wound upon the insulating material, and an insulating material covering the whole.

No. 59,380. Rubber Tubing. (*Tube de caoutchouc.*)



59380

The Gutta Percha and Rubber Manufacturing Company of Toronto, Toronto, Ontario, Canada, assignee of Bertram George Work, Akron, Ohio, U.S.A., 22nd March, 1898; 6 years. (Filed 10th December, 1897.)

Claim.—1st. In the manufacture of rubber tubing from sheets, the means for forming the joint without increasing the thickness of the tube, which comprises, in combination, means for folding the sheet, means for shearing the meeting edges and simultaneously pressing said edges together to cause their union at the extreme corner, means for deflecting the joined edges toward the median longitudinal line of the flattened tube, and means for exerting upon the tube at the joined edges pressure whereby the joint may be perfected, substantially as described. 2nd. In a machine for making rubber tubing from sheets cut into strips, the combination with a folder, of a shear cutter, a deflector whereby the meeting edges are brought toward a median line in the flattened tube, and pressers, whereby the meeting edges are brought together, substantially as described. 3rd. In a machine for making tubing from sheets cut into strips, the combination with the folder, of a shear cutter operating to shear off the meeting edges and join the inner corners of said edges under pressure, a solution applying device operating to solution said edges, and rollers operating upon the tube to force said edges together and perfect the joint, the parts being arranged as set forth, whereby the solution may be permitted to dry before said edges are pressed together, substantially as described. 4th. In a machine for making tubing from rubber strips, the combination of folding, shearing and solutioning mechanisms, and joint forming and completing mechanisms, said mechanisms being driven simultaneously, and a carrier operating to convey the partially formed tube from the first series of mechanisms to the latter series and serving to permit the

solution to dry, substantially as described. 5th. In a machine for making tubing from rubber strips, the combination with a carrier for the tube in process of manufacture of tube forming, shearing and solutioning mechanisms at one end of the carrier, and joint forming and completing mechanisms at the other end of the carrier, all driven simultaneously, substantially as described. 6th. In a machine for forming tubes from rubber strips, the combination with the carrier and means for folding the strip, of co-acting shear cutting discs F, F', operating to cut a strip off both edges of the sheet to leave a tube of the intended dimension and at the same time to join together the opposite corners of said sheet, substantially as described. 7th. In a machine for making tubes from rubber strips, the combination with means for advancing the strip and with means for folding it into tubular form, of rotary cutters F, F', and guide-rollers co-operating with the shear cutters to guide the folded strips through and away from said shear cutters, substantially as described. 8th. In a machine for forming tubes from rubber strips, the combination with means for advancing the strip and for holding the same and of means for cutting the edge of the strip to produce a tube of the intended dimension, of a rotary solution brush engaging the cut edges of the strip and guides for conveying said folded strip to and away from the solution brush, substantially as described. 9th. In a machine for forming tubes from rubber strips, the combination with the folding device for folding the strip into a tubular form, a cutting device for cutting off the edges of the strip, and a solutioning device for solutioning said edges, of a conveyor for conveying the folded and solutioned strip away from the solutioning device to permit the solution thereon to dry, substantially as described. 10th. In a machine for forming tubes from rubber strips, the combination with a strip folder, and edge cutting means and a solutioning device, and with a carrier to convey the strip away from said solutioning device and to permit the solution thereon to dry, of a deflector operating to twist the partially formed tube to change the joint therein from the side toward a median line, and means for closing the joint, substantially as described. 11th. In a machine for forming tubes from rubber strips, the combination with means for partially forming the tube into a folded strip with its edges adjusted and solutioned, and with means for deflecting the partially formed tube whereby it shall become twisted to present the joined edges at the middle thereof, of converging rollers engaging the tube on opposite sides of the joint and operating to press the meeting edges of the joint together, substantially as described. 12th. In a machine for making tubes from rubber strips, the combination with means for folding the strip, cutting off and adjusting the meeting edges and solutioning said edges, of a deflector operating to bring the meeting edges to the longitudinal centre of the tube, converging rollers engaging the tube on both sides of said edges and operating to form the joint, and pressure rollers operating to complete the joint pressure thereon, substantially as described. 13th. In a machine for making tubes from rubber strips, the combination with folding mechanism, edge cutting mechanism and joint forming mechanism, of means substantially as described, for applying to the tube in the course of manufacture and after the formation of the joint of a reinforcing strip, substantially as described. 14th. In a machine for forming tubing from rubber sheets, the combination with the conveying belt, of the folder D, shear cutters F, F', solutioner G, deflector H, vertical rollers I, converging rollers K, and compression rollers L, L', substantially as and for the purpose described. 15th. In a machine for forming tubing from rubber sheets, the combination with the carrier C, of the strip folding mechanism, shear cutters FF' operating to shear the strip *a* from the tube and to join the inner corners of the meeting edges of the tube, guides *pp'*, rotary solutioning brush G, deflector H, converging rollers K and cam-actuated spring-controlled transversely arranged shears MM', substantially as described. 16th. In a machine for forming tubing from rubber strips, the means for completing the joint of the opposite edges, comprising the vertical rollers I, and converging rollers K, arranged to operate substantially as described. 17th. In a machine for forming tubing from rubber strips, the means for severing off lengths of tubing, comprising, in combination, the transverse spring controlled shearing knives MM', the hammer N' operative to force the cutting knives toward each other, and a rotary cam connected with and operating said hammer, substantially as described. 18th. In a machine for forming rubber tubing, the means for cutting the tube into lengths, comprising the transverse co-acting spring-controlled knives MM', the hammer N' having the swinging nose *p*², the guide-standard O', the rotary cam P and a connection between the cam and the hammer for actuating the latter, the parts being arranged to operate substantially as described.

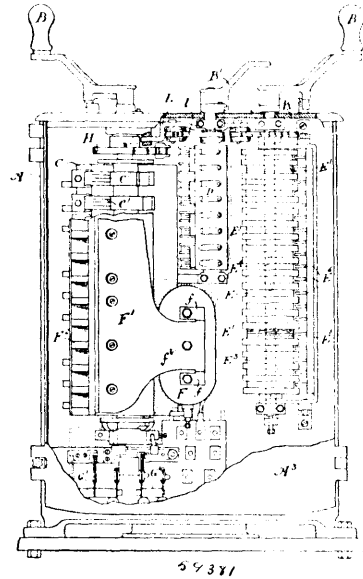
No. 59,381. Electrical Brake.

(*Frein électrique.*)

The Canadian General Electric Company, Toronto, Ontario, Canada, assignee of William B. Potter, Schenectady, New York, U.S.A., 22nd March, 1898; 6 years. (Filed 9th September, 1896.)

Claim.—1st. An electric braking mechanism, a controlling-switch for the electric motors, a brake-switch, a reversing-switch, and means adapted to prevent a simultaneous operation of any two of the switches. 2nd. In an electric braking mechanism, a controlling switch, a reversing-switch, a brake-switch, and means adapted to prevent the operation of the reversing-switch and the brake-switch

while the controlling-switch is being operated. 3rd. In an electric braking mechanism, a controlling-switch, a reversing-switch, and a



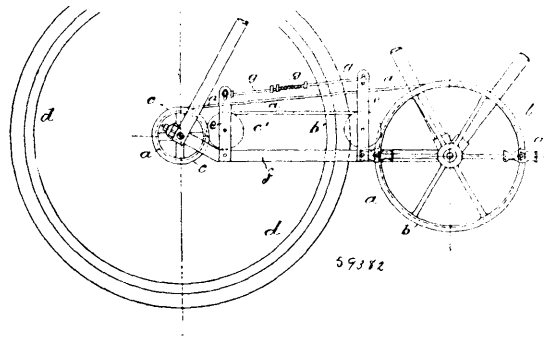
brake-switch, and means adapted to prevent the operation of the controlling-switch and the brake-switch while the reversing switch is being operated. 4th. In an electric braking mechanism, a controlling-switch, a reversing-switch, and a brake-switch, and means adapted to prevent the operation of the reversing-switch and the controlling-switch while the brake-switch is in operation. 5th. In an electric braking mechanism, a reversing-switch, a controlling-switch and a brake-switch, and interlocking mechanism between the reversing switch and one of the other switches, the other switches being connected. 6th. In an electric brake, a controlling-switch and a brake switch, and means connecting the switches arranged to cause the operation of one of them to always bring the other to the off position before the actuated switch is brought into operative position. 7th. In an electric brake, a controlling-switch, a brake-switch, and gearing connecting the two switches and arranged to always bring one of them to an off position by the operation of the other before the operated switch affects the motor circuits. 8th. In an electric brake, a brake switch, fixed contacts co-operating therewith, an idle portion and operative contacts upon the brake-switch, a controlling switch similarly provided with fixed contacts, operative contacts, and an idle portion, and connecting mechanism between the two switches, whereby the fixed contacts of one switch are upon the idle portion of that switch while the fixed contacts of the other switch are upon the operative contacts of that switch, and *vice versa*. 9th. In an electric brake, a cylindrical controlling-switch having operative contacts and a blank portion upon the cylinder, fixed contacts co-operating with the controlling-switch cylinder, a cylindrical brake-switch similarly arranged, fixed contacts co-operating therewith, and mechanism adapted to bring the fixed contacts upon one switch over the blank portion of the cylinder when the fixed contacts of the other switch are upon the operative contacts upon its cylinder, and *vice versa*. 10th. In combination, a plurality of switches, and mechanism connecting them adapted to bring part of them to the off position while permitting the further movement of the remainder. 11th. In an electric brake, a controlling-switch, a brake-switch, and co-operating mechanism adapted to bring the controlling-switch to rest at its off position while permitting the further rotation of the brake-switch. 12th. In an electric switch, a controlling-switch, a brake-switch, and co-operating mechanism adapted to retard the movement of the controlling-switch as it approaches the off position while permitting the further movement of the brake-switch. 13th. In an electric brake, a controlling-switch, a brake-switch, and co-operating mechanism adapted to progressively retard the movement of the controlling-switch as it approaches the off position while permitting the further movement of the brake-switch. 14th. In an electric brake, a brake-switch, a controlling-switch, mechanism connecting the two switches, a reversing-switch having a handle removable in one position only, and an interlocking mechanism adapted to lock the brake-switch and controller by the movement of the reversing-switch to the position in which its handle may be removed. 15th. In combination, a motor gear-casing, a brake-shoe, and means for supporting the brake-shoe upon the gear casing. 16th. In combination, a motor gear-casing, a brake-shoe, lugs upon the gear-casing, and co-operating parts upon the brake-shoe adapted to engage with the lugs. 17th. In combination, a motor gear-casing, a brake-shoe upon the gear-casing, and springs between the casing and the brake-shoe. 18th. In combination, a motor gear-casing, a

brake-shoe, means for supporting the brake-shoe upon the casing, and springs connecting the casing and brake-shoe at an angle to the plane of the shoe. 19th. As a new article of manufacture, a brake-shoe for an electric braking-mechanism, composed of an iron frame, and segmental blocks supported therein provided with coil chambers, the frame being made in portions spaced apart and adapted to engage with supporting means for the shoe. 20th. In a braking apparatus, and in combination, a rotating disc affixed to the axle of the car, a brake-shoe co-operating therewith, and a mechanical clamp or clutch adapted to hold the two in engagement, substantially as described. 21st. In combination, a rotating disc affixed to the car axle, an electro-magnetically operated brake-shoe, and a clamp or clutch co-operating therewith, arranged to hold the two parts in engagement after the cessation of current. 22nd. In a braking mechanism, and in combination, a rotating disc affixed to the car axle, a brake-shoe co-operating therewith, and a clutch comprising a bar having a lug at a right angle thereto, and means adapted to take up the play between the lug and the side of the disc or to release the lug, substantially as described. 23rd. In combination, a rotating disc affixed to the car axle, a brake-shoe, a clamp comprising a bar having a lug at a right angle thereto, means for taking up the play between the lug and the disc or for releasing the lug, a braking switch upon the car, and a connection between the clutch and the switch, whereby the clutch is operated in the last position only of the switch. 24th. As a means of providing a magnetic field adapted to extinguish arcs at the contacts of a switch cylinder, a coil connected between two of such contacts, and adapted to polarize the shaft of the cylinder. 25th. As a means of providing a magnetic field adapted to extinguish arcs at the contacts of a switch cylinder, a plurality of coils respectively connected between contacts near the ends of the switch cylinder. 26th. As a means of providing a magnetic field adapted to extinguish arcs at the contacts of a switch cylinder, a shaft composed of two pieces of iron divided by a piece of non-magnetic metal, and a plurality of coils connected between the contacts on the switch cylinder. 27th. As a means of providing a magnetic field adapted to extinguish arcs at the contacts of a switch cylinder, a shaft consisting of two pieces of iron united by a piece of non-magnetic metal and a coil connected between the contacts of the switch cylinder adapted to magnetize the shaft, thus forming a magnet adapted to extinguish any arc that may be formed. 28th. As a means of forming a magnetic field adapted to extinguish arcs at the contacts of a switching mechanism, a magnetic circuit of iron or steel consisting in part of the shaft of switching mechanism interrupted by a piece of non-magnetic metal, and a coil energizing such circuit. 29th. In an electric braking mechanism, the combination of two electric motors, separate retarding means for the wheels, operated by the motors, and means for cutting out either one of the motors while still maintaining the operativeness of the retarding means for the whole. 30th. In combination, in an electric braking mechanism, a plurality of braking magnets and two electric motors with cut-out switches adapted to cut out either one of the motors and leave all of the brake magnets in circuit with the other motor. 31st. In an electric braking mechanism, a plurality of electric motors and a plurality of brake-magnets, in combination with cut-out switches adapted to remove a part of the motors from the circuit, leaving the rest of the motors in circuit with the brake magnets. 32nd. In an electric braking mechanism, electric motors, brake-magnets, and connections between the two, in combination with switching mechanism provided with a frame, such frame forming part of the circuit between the motors, the switch and the brake-magnets. 33rd. In combination, a controlling-switch having an off position, a brake-switch, having an off position, a reversing switch having an intermediate position in which position only its handle is removable, and interlocking mechanism between the three switches whereby the brake-switch and controlling switch are locked in their off positions when the reversing switch is in the position in which its handle may be removed. 34th. In a locking mechanism for an electric brake, a rotating disc fast to the axle of the car, a brake-shoe co-operating therewith, a bar spanning the two and having a removable lug adapted to engage the outer surface of the disc, and means for taking up the play between the lug and the disc when the shoe and the disc are in engagement. 35th. The means for locking a braking mechanism herein set out, consisting of a bar provided with a lug, means arranged to take up the play of the lug, and springs adapted to restore the lug to its central position when released. 36th. The means for locking a braking mechanism herein set out, consisting of a bar provided with a lug at right angles thereto, an eccentric arranged to take up the play of the lug, and springs adapted to restore the lug to its central position when released. 37th. The means, herein set out, for locking two opposing surfaces together, consisting of a bar provided with a lug at an angle thereto, an eccentric adapted to take up the play between the bar and one of the opposing surfaces when they are brought into contact and leaf springs attached to the bar, bearing against suitable abutments or pins and adapted to return the bar to a central position upon its release, substantially as described. 38th. In combination, an electric motor, a car axle geared to the motor, a disc fast to the car axle, and a brake-shoe co-operating with the disc, the brake-shoe being suspended upon a part of the motor. 39th. In combination, an electric motor, a car geared thereto, a disc fast to the car axle, a brake-shoe co-operating with the disc, and a locking mechanism adapted to maintain the engagement of the brake-shoe and disc after the cessation of current. 40th. In combination, an electric braking

apparatus, and a mechanical lock for such apparatus controlled by the last movement only of the brake-switch. 41st. In combination, an electric braking apparatus and a mechanical lock for such apparatus controlled by the last normal movement only of the brake-switch. 42nd. In combination, an electric motor, a car axle geared thereto, a disc fast to the car axle, a brake-shoe co-operating with the disc, a controlling mechanism for the brake, and a lock or clamp adapted to be put on by the last motion of the controlling mechanism after the shoe and disc in engagement. 43rd. In combination, a series-parallel controller, a reversing-switch and brake-switch, and interlocking mechanism preventing the simultaneous operation of any two of the switches. 44th. In an electric braking apparatus, a rotary cylindrical switch having a shaft of magnetic material, and coils adapted to energize the shaft. 45th. An interlocking mechanism for electric switches, substantially as described, comprising a bolt as L , registering with a notch upon one of the switches, pawls, as K^2 , connected to the bolt by pins and slots, and cams upon two of the switches co-operating with the pawls, one of the cams having a projection adapted to prevent the motion of the pawl upon the other cam when the first cam is rotated.

No. 59,382. Velocipede and Motor Vehicles.

(*Vélocipèdes et Véhicules à moteur*)



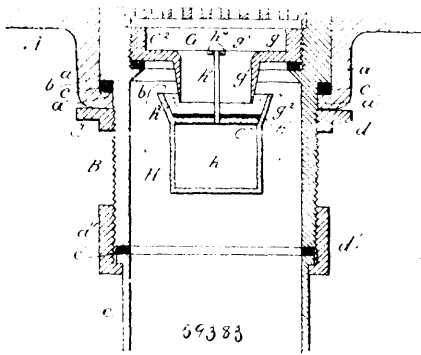
David Alexander McNight, Liverpool, assignee of William James, 166 Borough Road, Birkenhead, all in England, 23rd March, 1898: 6 years. (Filed 15th February, 1898.)

Claim.—1st. A belt driving gear for velocipedes and other vehicles of the kind referred to, in which the belt is wrapped or passed round the greater part of the belt wheels, in connection with which it works, substantially in the manner described, for the purposes set forth. 2nd. A belt driving gear for velocipedes and other vehicles of the kind referred to, in which the belt is caused to grip unto the wheels in connection with which it works, by pressing it into the periphery of such wheels (or one of them) at the point where the belt passes onto the wheel, or off it; operating substantially as set forth. 3rd. In a belt driving gear for velocipedes and other vehicles of the kind referred to, a driving and driven wheel, around the greater portion of which the belt is wrapped or passed by secondary wheels which press the belt at the points where the belt passes on and off respectively onto the peripheries of said wheels; substantially as herein set forth. 4th. In a belt driving gear for velocipedes and other vehicles of the kind referred to, the employment in connection with the belt wheels, of supplementary wheels, which cause the belt to wrap or pass round the greater portion of the periphery of such wheels, and wherein the secondary wheels are pressed in a regulated degree onto same; substantially as set forth. 5th. The belt driving gear for velocipedes or the like, comprising a drive wheel b on the crank axle the driven wheel c , on the driven road wheel, the secondary wheels b and e connected with b and c , respectively, supported upon the frame of the cycle, and carried up so that the belt on the "slack" wraps round the greater portion of the wheels b and e , and adapted to operate and press on the belt as described, and the part of the belt between the drive and driven wheels, working under tension, being straight; substantially as set forth. 6th. A velocipede or other vehicle controlling gear or brake, comprising a friction wheel or flange on the hub of, or connected with the wheel to be braked, and a band fixed at one part, and carried round the said friction wheel or flange, and adapted, at another part, to be moved onto and off the friction wheel or flange at that part, whereby the band is caused to come into contact with the wrap round the friction wheel or flange, which so moved; substantially as set forth. 7th. A velocipede controlling or brake gear, a friction wheel or flange, connected with the part to be braked; a band fixed at one end and free at the other, and disposed round said wheel or flange; and a roller, or the like, adapted to press the free end of the band onto said friction, disc or flange; substantially as set forth.

No. 59,383. Sanitary Appliance. (*Appareil sanitaire*)

Arthur O'Brien and August Fleck, both of Helena, Montana, U.S.A., 23rd March, 1898; 6 years. (Filed 7th February, 1897.)

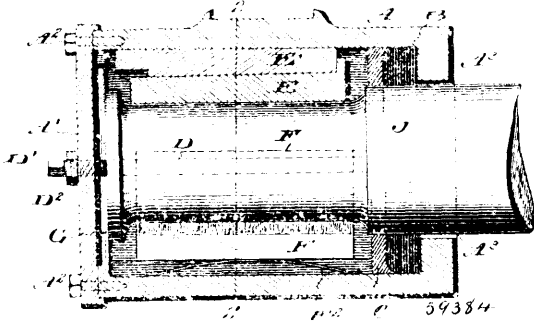
Claim.—1st. The combination with a pipe-section, having a reduced lower end, of a float vertically movable and flanged at its



upper end, said flange surrounding the pipe end and extending above the same to provide a constant seal, and a stop for supporting the float in its normal lowered position. 2nd. The combination with a pipe-section, of a strainer at its upper end, an inner pipe-section having a reduced lower end and terminating in a thin edge, a float below said inner section supported by a rod and flanged at its upper end to provide a trap into which the thin edge of the section extends, and a gasket in the base of the trap.

No. 59,384. Lubricating Journal Box.

(Boîte à graisse.)



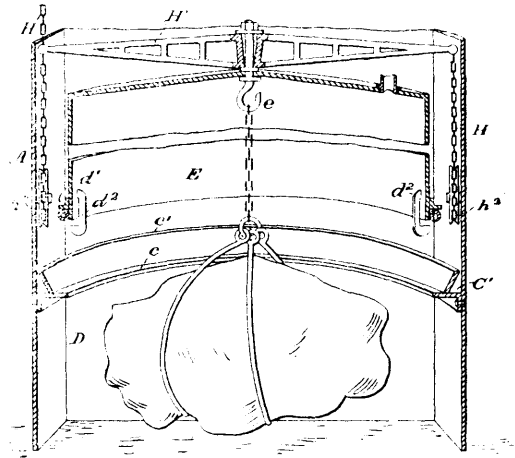
The Skilton Brown International Car Box Company, New Orleans, Louisiana, assignee of John W. Skilton, Daytona, Florida, all of the U.S.A., 23rd March, 1898; 6 years. (Filed 7th February, 1898.)

Claim.—1st. The combination with a journal and its casing, of a packing surrounding the journal, an annular follower plate bearing against said packing, rods threaded through a portion of the casing so as to bear against and force said follower plate into contact with said packing, and a removable oil reservoir having inclined outer faces adapted to fit between said rods and journal, substantially as specified. 2nd. The combination with a journal and its casing, of a removable oil reservoir having independent compartments for containing oil arranged in different planes, absorbent feeding material extending from said compartments, and yielding supports for forcing said reservoir into contact with the journal, substantially as specified. 3rd. The combination with a journal and its casing, of an oil reservoir composed of independent compartments one above the other, the upper of which is provided with an inner surface concentric to the lower portion of the journal, and an absorbent material extending from said reservoir and supported upon said concentric surface in contact with said journal, substantially as specified. 4th. The combination with a journal and its casing, of an oil reservoir yieldingly supported within said casing and provided with inclined side walls adapted to fit and wedge between stationary portions of the casing and the journal, and an absorbent material extending from said reservoir and thereby held in contact with said journal, substantially as specified. 5th. The combination with a journal and its casing, of an oil reservoir provided with independent compartments, a spring supported beneath said reservoir, a spring extending between the side wall of said reservoir and the side of the casing, and an absorbent material extending from each of said compartments into contact with the journal, substantially as specified. 6th. The combination with a journal and its casing, of a packing surrounding said journal, a follower plate, rods extending from the cover of the casing into contact with said follower plate, an oil reservoir provided with a curved face adjacent to said journal and an inclined outer face adapted to fit between said journal and rods, a spring supported beneath said reservoir, a spring interposed between the side of said reservoir and said casing, and an absorbent material extending from the reservoir into contact with said journal, substantially as specified. 7th. The combination with a journal and

its casing, of an oil reservoir composed of separate sections having a space between the same, an absorbent material extending from said reservoir into contact with said journal, and an absorbent material extending between the sections of said reservoir into contact with the lower portion of said casing, substantially as specified.

No. 59,385. Mining Caissons.

(Caisson pour l'exploitation des mines.)



The River Bedrock Mining and Manufacturing Company, San Jose, assignee of James M. Thorp, College Park, both in California, U.S.A., 23rd March, 1898; 6 years. (Filed 11th January, 1898.)

Claim.—1st. A caisson, comprising an outer casing having in its lower portion a working chamber formed of a fixed chamber section, and a vertically movable chamber section, whereby a single-chamber capable of separation will be formed, substantially as and for the purpose set forth. 2nd. A caisson, comprising a casing formed with a chamber in its lower portion, a vertically movable chamber portion in the casing above the chamber thereof and forming therewith a working chamber, and a sealing-cushion between the lower end of the movable chamber and the upper end of the fixed chamber, substantially as described. 3rd. A caisson comprising an outer casing having a working chamber in its lower portion, consisting of a fixed section, the side walls of which are formed by said outer casing, and a vertically movable section, and means for attaching a boulder grappling to said movable section, substantially as specified. 4th. A caisson, comprising a casing formed with a chamber in its lower portion, a vertically movable chamber in the casing above the chamber thereof and forming therewith a working chamber, the vertically movable chamber being of less diameter than the casing forming a space around said movable chamber for the reception of water, and a sealing-cushion between the lower end of the movable chamber and the upper end of the fixed chamber, substantially as described. 5th. A caisson comprising a casing having a working chamber in its lower portion, consisting of a fixed section and a movable section, locking devices for the sections, and a cushion between a seat at the upper portion of the fixed section and the lower portion of the movable section, substantially as specified. 6th. A caisson comprising an outer casing having a working chamber at its lower portion, consisting of a fixed section and a movable section, a bar having a rocking pivotal connection with the movable section, and hoisting cables connected to said bar, substantially as described. 7th. A caisson comprising a casing, a platform supporting the same, pulleys arranged in pairs and geared together on the platform, cables connected to the upper and lower portions of the casing and engaging around the pulleys, and means for driving the pulleys, substantially as specified. 8th. A caisson comprising a casing having a working chamber in its lower portion consisting of two sections, bucketshafts opening at the bottom into the working chamber and terminating at the top in practically air-tight chambers and chutes communicating with said air-tight chambers and having end closures substantially as specified.

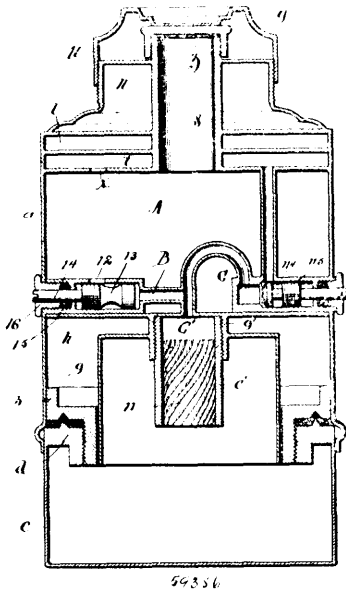
No. 59,386. Acetylene Gas Generator.

(Générateur de gaz acétyléine.)

George Purnell Fisher, assignee of Otto Sigismund Hellwig, both of Chicago, Illinois, U.S.A., 23rd March, 1898; 6 years. (Filed 7th January, 1898.)

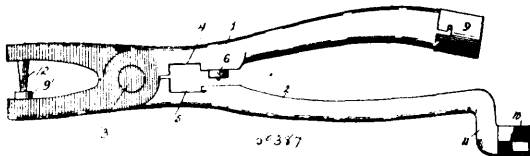
Claim.—1st. In gas-generators, the combination with the retort, and with the closed tank for the exciting liquid located at a level relatively higher than the retort, of an obstructive percolator interposed between said tank and retort, said percolator discharging at one side into the retort and at the opposite side communicating

with the tank by dual passages respectively above and below the free surface of its liquid contents, the passage that extends above



the tank's contents being for the escape of gas from the retort, and the other being for the passage of the liquid from the tank into the retort, substantially as described. 2nd. In gas-generators, the combination with the retort, and with the closed tank for the exciting liquid located at a level relatively higher than the retort, of a percolator with obstructive wad therein and located between said tank and retort, said percolator opening at one side of its wad into the retort, and at the opposite by branching passages communicating with the closed tank, respectively above and below the level of its liquid contents, the passage that extends above the tank's contents being for the escape of gas from the retort, and the other being for the passage of the liquid from the tank into the retort, and independent means for regulating the size of each passage, substantially as described. 3rd. In gas-generators, the combination with the inclosing case, having removable cup-retort at its base with escape-vent therefrom, of the cross-diaphragm with dependent bell projected into said retort, the percolator having an obstructive wad and extended within said bell to open into the retort, the tank located above said diaphragm and having a closed inlet to admit the liquid-supply, and branched conduits furnished with regulating-valves leading out from the percolator over its obstructive wad and respectively communicating with said tank above and below the level of its liquid, substantially as described. 4th. In gas-generators, the combination with the inclosing case, having cross-diaphragm therein to define a retort below and a tank for liquid above said diaphragm, of an interposed percolator dependent from said diaphragm, furnished with an obstructive wad, and opening into said retort beneath the wad, a regulated conduit uniting the lower part of the tank with the percolator above its wad, and a separate regulated conduit joining the like end of the percolator with the upper part of said tank, substantially as described. 5th. The combination with the inclosing case *a*, the cup-retort *c* secured at the base thereof and with the cross-diaphragm *f* having dependent bell-drum *g* projected in close proximity to the adjacent retort-wall, thereby establishing a reserve gas-chamber *h* between said retort and diaphragm, of the tank *A* with closed inlet for the liquid, the percolator *C* carried beneath from said diaphragm, furnished with an obstructive wad *11* and opening below such wad into the retort, the branching dual conduits *B, C* uniting the percolator above its wad with the upper and lower parts of said tank respectively, the distributing-dome *n* having outlet *o* for the gas, and a tube *i* establishing communication between gas-reserve chamber *h* and dome *n* through porous check *k*, substantially as described.

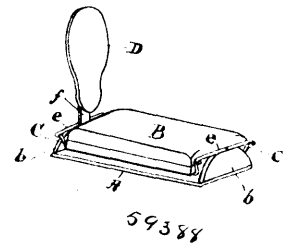
No. 59,387. Combination Tool. (Outil à combinaison.)



Danton O. Brunner and Benjamin F. Lentz, both of Somerset, Ohio, U. S. A., 23rd March, 1898; 6 years. (Filed 31st December, 1897.)

Claim.—1st. In a combinative tool, the combination therewith of two portions or members pivoted one upon the other and adapted by conjunction to form an adjustable wrench head, and in conjunction with said member a fixed wrench head, a riveting die, a punch head and punch seat, receptacle for brads and a cover for said receptacle, the whole constructed and adapted for operation substantially as herein set forth. 2nd. As a new article of manufacture, the combinative tool consisting of two arms or members pivoted radially upon each other, and provided in each member near their point of intersection with facing recesses adapted to form an adjustable wrench head; one of said members being provided with a hollow portion in the outer end thereof, a cap for closing the same, a die formed upon the inner surface thereof, and a die set formed upon the inner surface adjacent to the opposite end thereof; and the other arm or member having formed upon the outer end thereof a fixed wrench head, and adjacent to the opposite end an inwardly directed punch head, substantially as and for the purpose herein set forth. 3rd. In an improved combinative tool, the combination therewith of two radially pivoted arms or members, each provided adjacent to the point of intersection with inwardly facing recesses adapted in conjunction to form an adjustable wrench head; a recess formed in the handle portion of one of said arms, a cap for closing the outer end of same, a riveting die upon the same member adjacent to the recess therein, and a die seat upon the end adjacent to the point of intersection with the opposite member or arm, and another arm having formed upon the end of the handle portion thereof a fixed wrench head, and upon the opposite end thereof an inwardly directed punch head, substantially as and for the purpose herein set forth. 4th. A combination tool consisting of two arms or members pivoted radially upon each other, each having formed therein adjacent to their intersection a recess adapted when the two portions are in conjunction to form an adjustable wrench head; and having provided within and upon said members a fixed wrench head; a riveting die, a punch head, a seat for said punch head, a brad receptacle and a cap to close the outer end of said receptacle, the whole constructed, adapted and arranged for operation as herein set forth.

No. 59,388. Locomotive Cab Seat. (Siège pour locomotives.)



Austin J. Harvey, Newport, Maine, U.S.A., 23rd March, 1898; 6 years. (Filed 12th March, 1898.)

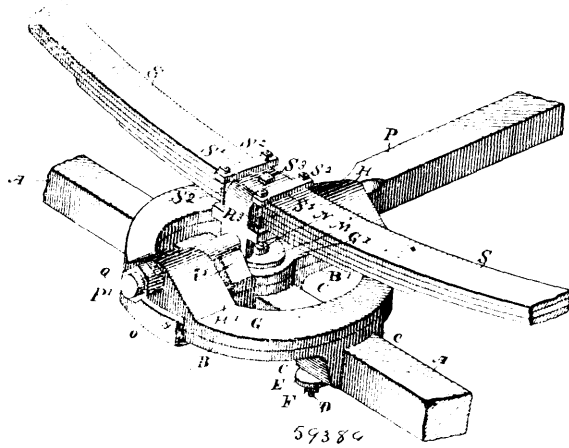
Claim.—1st. A laterally swinging locomotive cab-seat consisting of a seat proper provided with longitudinally-extending crank-hangers having their crank-shaped ends attached to the extremities of lateral springs and lateral springs having their free ends adapted to receive the ends of the crank-hangers, and a base having means for connecting said springs for the purpose described and substantially as shown and set forth. 2nd. A locomotive cab seat consisting of the combination of a rectangular-shaped seat, an upright back connected thereto at one end by a spring, longitudinally-extending rods having crank-shaped ends passing under said seat and having their extremities connected to springs in such manner as to allow lateral swinging of the seat in a horizontal position, and a base-board extending under said seat upright cleats for attaching the springs thereto, lateral springs interposed between the crank-hangers and said cleats all for the purpose described and substantially as set forth. 3rd. An improved locomotive cab-seat consisting of the combination of a baseboard having vertical cleats at each extremity, transverse springs of one or more leaves secured to said cleats, crank-hangers having their crank ends confined in the extremities of said springs, a seat attached to the shaft of said crank-hangers in such manner as to allow horizontal side movement, and a back secured to one end of said seat by a spring, all substantially as described, and for the purpose set forth.

No. 59,389. Fifth Wheel. (Rond d'avant train.)

John J. Crall, Chauncey, Missouri, U.S.A., 23rd March, 1898; 6 years. (Filed 19th February, 1898.)

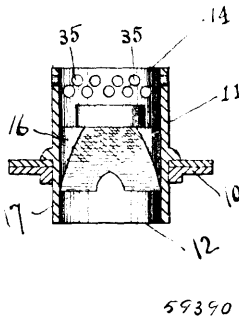
Claim.—1st. In fifth wheel, the combination of the lower ring, having a cross-bar made integral therewith, and a stud projecting centrally from said cross-bar, with an upper ring, provided with a cross-bar having a central opening to receive said stud, the upper surfaces of the stud and cross-bar being flush when in position, a king bolt, passing upwardly through the cross-bar of the lower ring and its stud and projecting above the upper ring, a broad washer on the king bolt, lying upon the surface of the stud and upper cross-bar, and a nut upon the king bolt, adapted to be screwed down upon said washer, substantially as described. 2nd. In a fifth wheel, the upper

ring, provided with bearing-lugs diametrically opposite each other, and the coupling-pole of the vehicle journalled in said bearing-lugs,



substantially as described. 3rd. In a fifth wheel, the combination of the lower ring, provided with a cross-bar having a stud centrally raised thereon, with the upper ring, provided with a cross bar, centrally bored to receive said stud, a king bolt passing through the lower cross-bar and its stud, a suitable washer and nut thereon, and diametrically-located clamp plates secured upon the perimeter of the upper ring and projecting under the lower ring, substantially as described. 4th. The combination with a fifth wheel provided with bearing-brackets, of the coupling-pole of the vehicle, journalled in said brackets, substantially as described. 5th. The combination of the lower ring of a fifth wheel, provided with a cross-bar integral therewith and having three sets of lugs, two sets depending from the ring and one set from the cross-bar, with the axle seated between said lugs, clamp plates beneath the axle at each set of lugs, bolts passing through the ring and clamp plates, and nuts for suitably securing them, substantially as described. 6th. The combination of a block, provided with perforated, depending lugs and opposite, upwardly-extending flanges, with the coupling-pole of the vehicle, journalled in said lugs, the front spring resting upon the block between said upward flanges, clamp plates upon the top of the spring, and bolts for securing them to the block, substantially as described.

No. 59,390. Valve. (Soupape.)

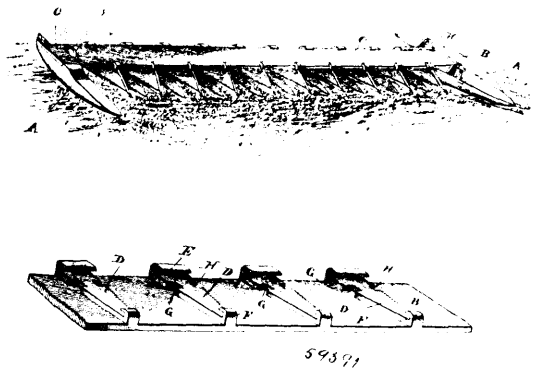


Robert S. Watson, Bay City, Michigan, U.S.A., 23rd March, 1898; 6 years. (Filed 10th March, 1898.)

Claim.—1st. In a water closet, the combination of an upper and lower water chamber divided by a web having a main valve opening and a valve seat on its under side, and having a water inlet opening to the lower chamber, and an outlet opening from the upper chamber, a main valve upon the said seat and provided with a central opening with a seat on its under side for a relief valve, and having on its upper side around said relief valve opening a tube extending upwardly nearly to the top of the upper chamber, a guide piece within said tube and with water passages on each side of the guide piece, a valve rod passed through the upper chamber and extending loosely through the guide piece and tube and carrying on its lower end a relief valve resting on said seat, and provided at a point above the guide piece with a shoulder for actuating the main valve downwardly after the relief valve is open, substantially as set forth. 2nd. In a valve for a water closet, the combination of an upper and a lower water chamber divided by a web having a main valve opening, and with a valve seat on its under side and provided with openings for the passage of water to the lower chamber and from the upper chamber, a main valve upon said seat, and provided with an opening and seat for a downwardly operated relief valve and an

upwardly projecting tube above the relief valve opening, with a pliable soft disc secured to the upper portion of the upper chamber for cushioning the force of the water passing through said relief valve opening and tube, and a valve rod for first opening the relief valve and then the main valve, substantially as set forth. 3rd. A valve for a water closet composed of an upper and a lower water chamber having a dividing web between provided with a valve seat, and with an inlet opening to the lower chamber and an outlet opening from the upper chamber, a main valve upon said seat and provided with a central opening a relief valve seat, a relief valve upon said seat, with a valve operating rod extending through the said upper chamber and passing loosely through the said main valve, and with its lower end secured to the said relief valve, and provided at a short distance above the main valve with a shoulder for contact with the main valve, whereby on the downward movement of the rod the relief valve is opened and then the main valve is opened and a spring for actuating said rod to close the valves, substantially as described. 4th. In a water closet valve, the combination of the air chamber carrying a piston and provided with a valve for the rapid admission of air to the chamber and a vent for a slow exhaust of air from the said chamber, a water chamber below the said air chamber and provided with a web for dividing the chamber into an upper and a lower section and having a main valve opening with a valve seat on its under side, a water inlet into the lower section, and an exhaust opening from said upper section, a main valve upon said seat and provided with an opening having a seat for a relief valve and provided on its upper side around said relief valve opening with a tube extending toward the top of said upper section, and provided near its upper end with a series of relief openings, a downwardly tapered wedge-shaped guide piece within said tube and provided with a central opening for a valve rod, and with passages on its opposite sides, a valve operating rod passed through said air chamber and piston and extending through said upper section, guide piece and tube and carrying on its lower end a relief valve resting on said seat and provided above said guide piece with a shoulder for opening the main valve after the relief valve is open, and a spring for operating the piston and valve rod upwardly, substantially as set forth.

No. 59,391. Cutter Bar. (Souche de lames.)

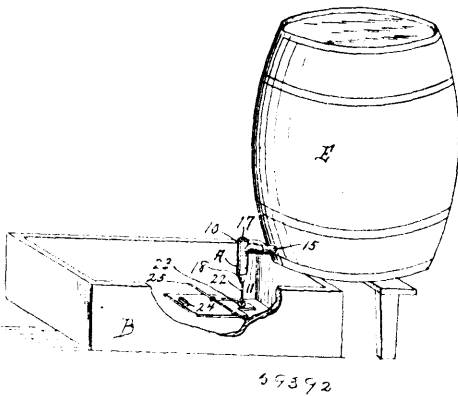


Albert J. Anthony, Big Run, Pennsylvania, U. S. A., 23rd March, 1898; 6 years. (Filed 19th February, 1898.)

1st. A knife for harvesting machines provided with the usual "V"-shaped end and sharpened edges, having rectangular lugs projecting from the sides thereof, substantially as described. 2nd. A knife for harvesting machines, provided with transverse blocks mounted upon its upper edge, formed and positioned to receive the main body of the knives between them, each block having rectangular recesses in its sides, substantially as and for the purpose set forth. 3rd. In a cutter bar for harvesting machines, a knife-bar, provided with a series of transverse blocks having side recesses or notches, in combination with knives shaped in outline to accurately fit between adjacent blocks on the knife-bar and provided with lugs to enter the recesses in the blocks, substantially as described. 4th. A knife for harvesting machines, provided with transverse blocks having overhanging flanges adapted to embrace the edges of the top bar, substantially as described. 5th. The combination in a harvesting machine, of a knife-bar provided with transverse blocks upon its upper edge having overhanging flanges, with the finger-bar upon which the knife-bar rests, and the top bar resting upon the top of the blocks, the overhanging flanges of which embrace its upper edges, substantially as described. 6th. The combination in a harvesting machine, of a slidable knife-bar provided with transverse blocks on its upper surface having side recesses and overhanging flanges, knives located in the spaces between the transverse blocks and provided with lugs fitting the side recesses of said blocks, and a top bar fitting upon the top of the transverse blocks and the knives, the overhanging flanges embracing the edges of the top bar and preventing its displacement, substantially as described.

No. 59,392. Stock-Watering Device.

(Appareil pour abreuver le bétail.)

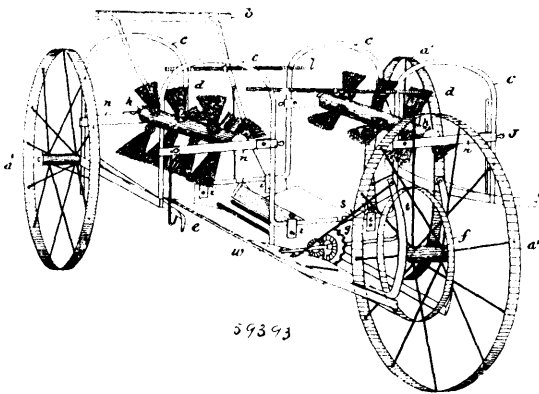


Joseph Seiler, Carroll, Iowa, U.S.A., 23rd March, 1898; 6 years. (Filed 14th March, 1898.)

Claim.—1st. In a watering-device, the combination, with a substantially T-shaped body, its vertical member being provided with a plug, an inlet-nozzle connected with the horizontal member of the body, and an outlet-nozzle having an apertured top, of a valve adapted to close the aperture in the top and having movement in the vertical member of the aforesaid body, a trip-rod connected with the valve, extending outward through and beyond the outlet end of the outlet-nozzle, and a float engaging with the outer end of the said trip-rod regulating the action of the aforesaid valve, substantially as shown and described. 2nd. In a stock-watering device, or a device of like character, the combination, with a substantially T-shaped body provided with a removable plug at one end of its vertical member and an inlet-nozzle connected with the outer end of its horizontal member, of an outlet-nozzle having tapering form and a closed top provided with an outlet-aperture, the said outlet-nozzle being located in the end of the vertical member of the body opposite the plug, a valve adapted to normally close the outlet-aperture in the aforesaid outlet-nozzle, a stem attached to the said valve and extending outward beyond the lower end of the outlet-nozzle, terminating in a foot, a receptacle over which the device is located, and a pivoted float located in the said receptacle, one end whereof is in engagement with the foot of the aforesaid valve, as and for the purpose specified.

No. 59,393. Potato-Bug Exterminating Machine.

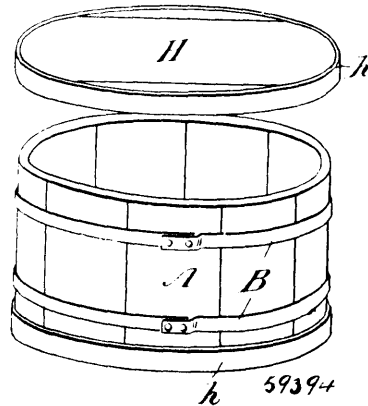
(Machine pour moucher à patates.)



William Barber, West Wawanosh, Ontario, Canada, 23rd March, 1898; 6 years. (Filed 29th October, 1897.)

Claim.—1st. The combination, in a potato-bug destroying machine, of the brush-rollers *d, d*, the receiving pan *w, w*, and the crushing-rollers *m, m* that remove or dislodge the potato-bugs from the potato-tops, receive them into a pan, and eventually crush and kill them, all substantially as described. 2nd. The adjustable frame *C, C, C, C*, permitting the machine to be raised or lowered, widened or made narrow, as occasion may require, and the particular purpose, as specified.

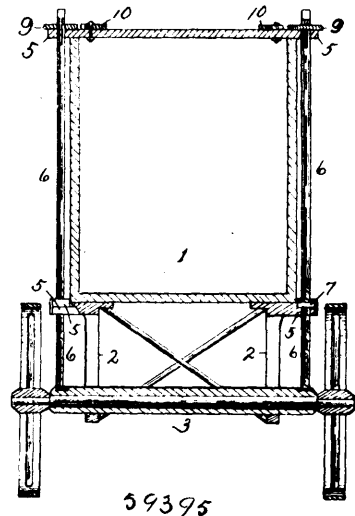
No. 59,394. Cheese Box. (Boîte à fromage.)



Chester Haskin, Phillipsville, Ontario, Canada, 23rd March, 1898; 6 years. (Filed 21st March, 1896.)

Claim.—As a new article of manufacture, a cheese box composed of straight vertical jointed staves *A*, bound with a hoop or hoops and provided with heads *H*, substantially as set forth.

No. 59,395. Waggon. (Wagon.)



Andrew Boden and William Boden, Akron, Iowa, U.S.A., 23rd March, 1898; 6 years. (Filed 12th March, 1898.)

Claim.—1st. The combination with the axle of a wheeled vehicle provided with lateral shoulders, of a body mounted thereon and provided with depending guides between which the axle is situated, and upright operating-rods connected with said axle and engaging a nut carried by said body. 2nd. The combination with the axle of a wheeled vehicle having curved lateral shoulders, of a body portion provided with depending guides between which the said axle is situated, and means for moving said body with relation to the axle.

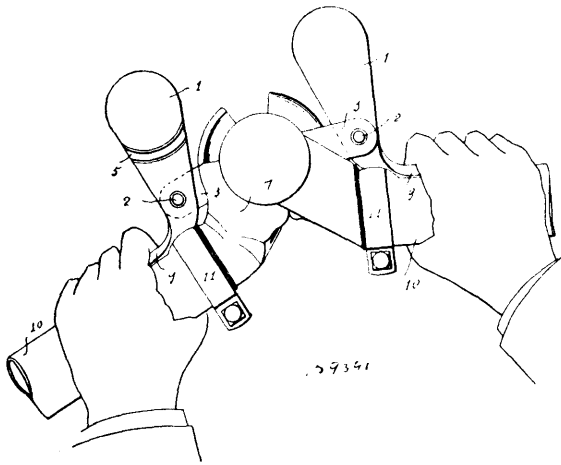
No. 59,396. Dust Guard for Hose Coupling.

(Garde-poussière pour joints de boyaux.)

William Heblitch Stark, Toledo, Ohio, U.S.A., 23rd March, 1898; 6 years. (Filed 12th March, 1898.)

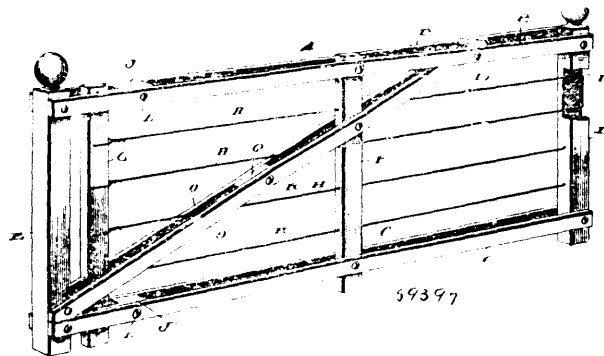
Claim.—1st. In a dust guard for hose couplings, a coupling section, a weighted dust guard pivoted thereto, and means for forcing the dust guard in its operation by the force of gravity against the face of the coupling section. 2nd. In a dust guard for hose couplings, a coupling section, a pivoted dust guard, a handle projecting therefrom at an angle thereto, whereby, when the handle is in a plane parallel with the hose, the dust guard is raised above the coupling section. 3rd. In a dust guard for hose couplings, a coupling section, a dust guard pivoted thereto and operating automatically to close by gravitation, and means for forcing the dust guard progressively against the face of the coupling section. 4th. In a dust guard for hose couplings, a coupling section, a pivoted dust guard operating in the same plane as the face of the orifice, and closed automatically by gravitation, means for holding the dust guard against the face of

the coupling section, and a handle projecting from the dust guard at an angle thereto, whereby when the handle is in a plane



parallel with the hose, the dust guard is raised above the coupling section. 5th. In a dust guard for hose couplings, a coupling section, a dust guard pivotally secured thereto, having a handle concaved to conform to the circumference of the hose and rest thereon when the guard is removed from closing the section. 6th. In a dust guard for hose couplings, a coupling section, a hose secured thereto by a band, an ear projecting upwardly from the band, a weighted dust guard pivotally secured thereto, and means for forcing the dust guard against the face of the coupling section. 7th. In a dust guard for hose couplings, a coupling section, a hose, band for securing the hose upon the coupling section, an ear projecting above the band, a dust guard pivotally secured thereto, a projection extending to one side of the band for engagement with the coupling section to properly position the bands with reference to the coupling section. 8th. In a dust guard for hose couplings, a coupling section, a dust guard pivotally arranged with reference thereto, and means comprising a cam face upon the dust guard for engagement with the coupling section for holding the dust guard against the face of the coupling sections. 9th. An automatic dust guard for hose couplings, consisting of the combination of the following elements, a coupling section provided with projecting cam arm, a weighted dust guard pivotally secured to the coupling section and adapted to swing in a plane parallel to the base thereof, and be positioned between the face of the section and the cam arm to cover the orifice, and means for retracting the dust guard when the section is coupled to another, substantially as described.

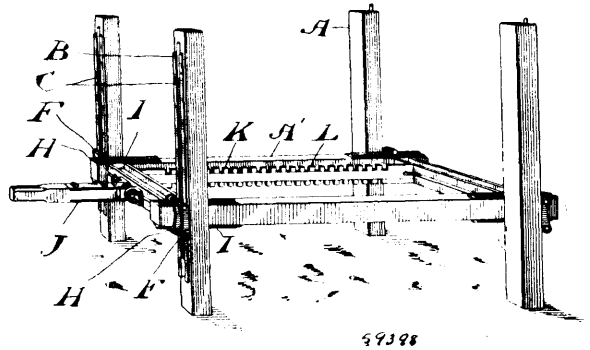
No. 59,397. Gate. (Barrière.)



Broughton McNall, Chili, New York, U.S.A., 23rd March, 1898; 6 years. (Filed 10th February, 1898.)

Claim.—In a gate of the character described, the combination of the gate frame, the movable upright G, the wires connected therewith, the block J held between the two upper rails of the gate, the bolt D, said block J being provided with a longitudinal slot as described, the bolt M passed through an aperture in the upright and having its inner end secured to the block, and a spring N sleeved upon the bolt between the upright and block, substantially as described and for the purpose specified.

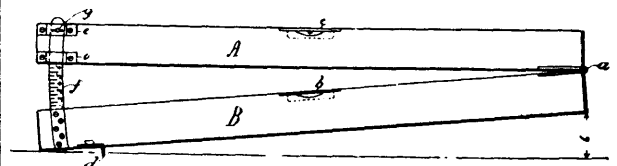
No. 59,398. Stone Sawing Machine. (Machine à scier la pierre.)



John McIntosh, Toronto, Ontario, Canada, 23rd March, 1898; 6 years. (Filed 21st February, 1898.)

Claim.—1st. In a stone sawing machine, the combination with a horizontal reciprocating saw-frame, of one or more horizontal saw-bands provided with teeth formed by grooving centrally each side of the saw-band, and stamping out the teeth so as to leave spaced rectangular teeth of greater thickness than the body of the band; and means for vertically moving the saw-frame, substantially as described and specified. 2nd. In a stone sawing machine, a saw-band provided with teeth, formed by grooving centrally each side of the saw-band, and stamping out the teeth, so as to leave spaced rectangular teeth of greater thickness than the body of the band which is recessed with respect to the sides of the teeth, substantially as specified. 3rd. In a stone sawing machine, the combination of a horizontal saw-frame and means for reciprocating the same, of tracks formed at the corners of the saw-frame above and below the same, grooved wheels held adjustably in position on which the tracks are designed to move, the saw-bands provided with teeth, formed by grooving centrally each side of the saw-band and stamping out the teeth, so as to leave spaced rectangular teeth of greater thickness than the body of the band, substantially as specified. 4th. In a stone sawing machine, the combination with the corner posts A, of the vertically adjustable and reciprocating saw-frame A', provided with tracks I, adapted to move on grooved wheels H, to the frame A', and the spaced rectangular teeth L, formed on the edge of the saw-band, which is recessed with respect to the sides of the teeth, substantially as specified. 5th. In a stone sawing machine, the combination of the vertical corner posts A, the saw frame A', the vertical guide bars B, the rotatable threaded rods C; the threaded sleeve D, formed on plate E, and adapted to receive the threaded rods C; the adjustable journal pieces F; provided with flanges F' which bear on the guide bars B; the spindles G, journalled at f, in the adjustable journal pieces F; the grooved wheels H, having hubs H', sleeved on the spindles G; the tracks I, formed on the upper and lower sides of the saw frame A'; the pitman J, pivotally connected to the saw frame A'; the saw band or bar K, provided with teeth L, substantially as specified.

No. 59,399. Clinometer. (Clinomètre.)



Richard Craig and William H. Craig, both of Truro, Nova Scotia, Canada, 23rd March, 1898; 6 years. (Filed 9th December, 1897.)

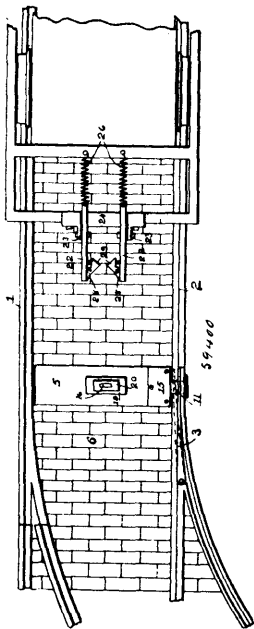
Claim.—In a gradiometer or clinometer, having an upper member A provided with a spirit-level, a lower member B hinged thereto and also carrying a spirit-level, a graduated arc rising from one end of the lower member and adjustably connected with the upper member, and means for setting the same, the combination of an angle-plate d removably secured to the lower member, substantially as and for the purpose described.

No. 59,400. Street Railway Switch. (Aiguille de chars de rue.)

Anton Schmackers, Dayton, and H. Ernest Murphy, Springfield, Ohio, U.S.A., 24th March, 1898; 6 years. (Filed 22nd February, 1898.)

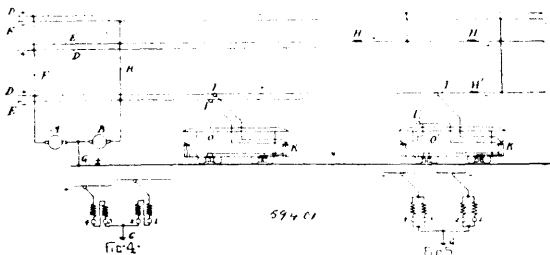
Claim.—1st. In a street-railway switch, the combination with a shifting-bar having a connection with the switch-tongue, a cam lying flush with the track and having a connection with the said

shifting-bar, of bars fulcrumed on the truck provided with lugs projecting from their lower ends, actuating pieces pivoted to said



lugs and adapted to trip the cam, the said pivotal pieces being so mounted that the planes of their inner sides will be on an angle to the bars, and the planes of their sides which are adjacent to said bars will be parallel to said bars, and springs inclosed between the said pivotal pieces and bars, as herein shown and described. 2nd. In a street-railway switch, a casing having an open bottom, guide projections on the inner sides of said casing, a slide mounted in said casing, a shifting-bar attached to said slide and having a connection with the switch-tongue, and a cam connected with said shifting-bar, in combination with the bars having a pivotal attachment with the truck-frame and provided at their lower ends with tapering lugs that project inwardly, trip-pieces pivoted to said lugs, springs inclosed between said trip-pieces and the bars, and means for manipulating said bars, as herein shown and described. 3rd. In a street-railway switch, the combination with a switch-tongue, of a rack-bar having a connection with said tongue, a toothed sector meshing with said rack-bar, a segment plate to move said toothed sector, bars having a pivotal connection with the truck, pivotal trip-pieces on the lower ends of said bars, springs inclosed between said trip-pieces and bars, and means for manipulating said bars to lower the trip-pieces to a position to actuate the said segment-plate, as herein shown and described.

No. 59,401. Method of Regulating Electric Motors. (Appareil régulateur pour moteurs électriques.)

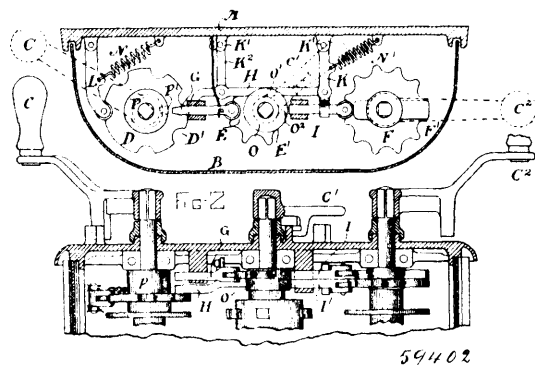


The Canadian General Electric Company., Toronto, Ontario-Canada, assignee of William B. Potter, Schenectady, New York, U.S.A., 24th March, 1898; 6 years. (Filed 21st October, 1896.)

Claim.—1st. The art of operating electric motors upon a three-wire or series-multiple electric railway, which consists in running upon each car an equal number of motors upon each side of the system, and making similar changes or steps in the control of each side. 2nd. The art of operating electric motors upon a three-wire or series-multiple electric railway, which consists in running upon each car an equal number of motors upon each side of the system, and simultaneously making similar changes or steps in the control of each set of motors. 3rd. The art of operating electric motors upon

a three-wire or series-multiple electric railway, which consists of dividing the motors upon each car into two groups, one group upon each side of the system, and simultaneously operating the two groups by the series-parallel system of control. 4th. The art of operating electric motors driving an electrically-propelled vehicle herein set out, which consists in connecting the motors in groups of two upon opposite sides of the three-wire system for one rate of speed, and then connecting them in a single group between the neutral and one of the opposite wires of the system for different speeds. 5th. An electrically-propelled vehicle, a plurality of motors thereon connected in groups or sets upon the two sides of a three-wire system, and means controlled by a single handle for simultaneously regulating the two sets of motors. 6th. In combination, a railway track forming the neutral in a three-wire system, positive and negative conductors forming the outer wires of the system extending along the track, an electrically propelled vehicle on the track making travelling contact with both positive and negative conductors, motors upon the vehicle in circuit with each side of the system, and means carried by the vehicle for simultaneously regulating the motors upon each side. 7th. An electrically-propelled vehicle, a plurality of motors thereon divided into two groups, one group connected upon each side of the three-wire system, a controller for each group and a connection between the controllers whereby they are both operated by a single handle, and the motors simultaneously regulated upon each side of the system. 8th. An electrically-propelled vehicle, a plurality of motors driving the vehicle, the motors being connected in groups upon each side of the series-multiple or three-wire system, and means for regulating the motors. 9th. A plurality of electric motors connected in groups upon each side of a three-wire or series-multiple system and geared to and simultaneously driving a common load, and means for regulating the motors. 10th. A number of electric motors connected in equal parts upon each side of a three-wire or series-multiple system, mechanically connected to and simultaneously driving a common load, and means for regulating the motors. 11th. A plurality of electric motors connected in groups upon the two sides of a three-wire or series-multiple system and geared to a common load, and means for controlling the motors in each group by the series parallel system of control. 12th. An electrically-propelled vehicle, a plurality of motors thereon divided into groups or sets of two connected upon each side of a series parallel or three-wire system, and controlling means for the motors arranged to simultaneously control the motors on each side by the series-parallel system of control, substantially as described. 13th. In combination, a pair of motors, a controlling switch for such motors, a second pair of motors, a similar controlling switch for the second pair of motors, and common operating means for the two controlling switches. 14th. In combination, a pair of motors, a series-parallel controlling switch for the two motors, a second series-parallel switch for the second pair of motors, and means for simultaneously operating the two controlling switches. 15th. In a series-multiple of three-wire electric railway having two tracks or sets of conductors, adjacent conductors for the different tracks having the same sign and potential, substantially as described.

No. 59,402. Electric Brake. (Frein électrique.)

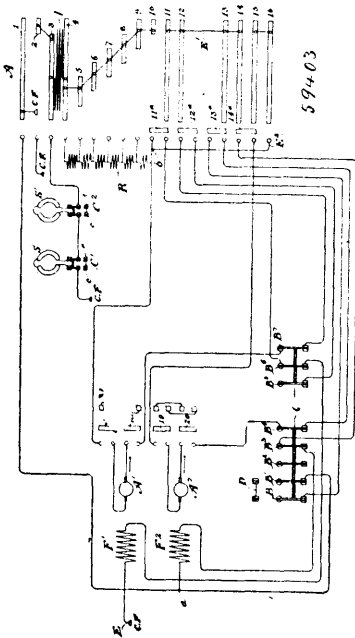


The Canadian General Electric Company, Toronto, Ontario, and William B. Potter, Schenectady, New York, U.S.A., 24th March, 1898; 6 years. (Filed 15th December, 1896.)

Claim.—1st. In an electric braking apparatus, the combination of a controlling-switch, a reversing-switch and a braking-switch having two sets of contacts corresponding respectively to the forward and backward running positions of the reversing-switch, and means for locking the switches so that only one of the switches may be operated at one time, the interlocking means being so arranged that the braking-switch may be operated only in a direction corresponding to the proper position of the reversing-switch. 2nd. In an electric brake, the combination of a controlling-switch, a reversing-switch, and a braking-switch provided with two sets of contact corresponding to the forward running positions of the reversing-switch, and an interlock between the reversing-switch, controller

and breaking-switch, the interlock arranged to permit the operation of the braking-switch in one direction when the reversing-switch is set forward and in the other direction when the reversing-switch is set back. 3rd. In an electric brake, the combination of a controlling-switch, a reversing-switch, and a braking-switch having two sets of contacts corresponding respectively to the forward and backward positions of the reversing-switch, a pawl operated by a cam upon the reversing-switch to lock the controlling-switch, a second pawl operated by the braking-switch and locking the controller, and a pair of pawls operated by corresponding star-wheels or cams upon the braking-switch, one of said pawls locking the reversing-switch in its forward position, the other in its backward position, and one being operated by the rotation of the braking-switch in one direction, the other by its rotation in the opposite direction.

No. 59,403. Electric Brake. (Frein électrique.)



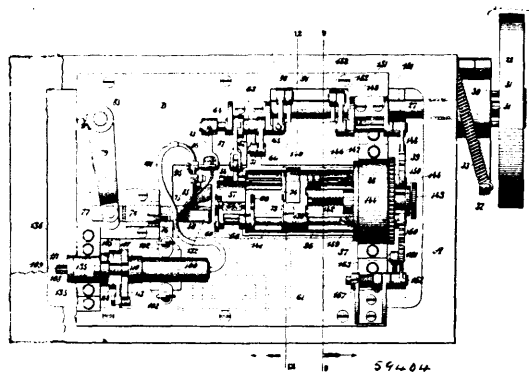
The Canadian General Electric Company, Toronto, Ontario, Canada, assignee of William B. Potter, Schenectady, New York, U.S.A., 24th March, 1898; 6 years. (Filed 15th December, 1896.)

Claim.—1st. In an electric braking apparatus, a plurality of electric motors arranged in multiple, equalizing connections connecting similar terminals of the field magnet coils at each end of such coils, and equalizing connections connecting similar terminals upon both sides of the armatures, in combination with brake-magnets in circuit with the motors. 2nd. In an electric braking apparatus, a plurality of electric motors having equalizing connections across similar terminals of the field-magnets and the armatures at each end thereof, in combination with brake-magnets and a resistance included in the local circuit with motors. 3rd. In an electric braking apparatus, a plurality of electric motors arranged in multiple with their field-magnet and armature terminals at each end thereof respectively connected by equalizing connections, in combination with brake-magnets arranged in series in a local circuit with the motors. 4th. In an electric braking apparatus, a plurality of electric motors, means adapted to cut out either one of the motors at will, a plurality of brake-magnets arranged in series, means for cutting out individual brake-magnets without interrupting the continuity of the circuit, and a local circuit including the motors and brake-magnets. 5th. In an electric braking apparatus, a plurality of electric motors arranged in multiple and provided with equalizing connections for similar terminals of their field-magnets and armatures, a local circuit and regulable resistance in the local circuit, a plurality of brake-magnets arranged in series with the resistance and the motors in the local circuit, and means for cutting out either of the motors or of the brake-magnet without interrupting the continuity of the circuit. 6th. In combination, a dynamo-electric armature, brake-magnets actuated thereby means for regulating the current supplied to the brake-magnets by the armature, and means for cutting out the brake-magnets and short-circuiting the armature upon itself. 7th. In an electric braking apparatus and in combination, a motor or motors furnishing current when driven by the momentum of a moving vehicle, a local circuit for such motors, brake-magnets in the local circuit, a controller and a resistance also in the local circuit, contacts and cross-connections upon the controller adapted to vary the amount of resistance in circuit or to open the circuit, and auxiliary contacts and

cross-connections arranged to cut-out the brake-magnets and resistance and to short-circuit the motor upon itself at a certain definite position of the braking controller. 8th. In combination, a motor or motors furnishing current when driven by the momentum of a car, a controller for regulating the action of the current in the braking apparatus, and contacts and cross-connections upon the controller acting to short-circuit the motors and cut out the braking magnets and thus apply an emergency stop at a certain definite position in its rotation. 9th. In combination, a plurality of motors, a brake-magnet, a local circuit including the brake-magnet and the motors, the motors being provided with equalizers for their fields and armatures, a controller regulating the action of the current supplied by the motors when driven by the momentum of the moving vehicle, contacts and cross-connections upon the controller regulating the braking action, and auxiliary contacts and cross-connections cutting out the braking apparatus and short-circuiting the motors upon themselves without resistance in the last position only of the braking-switch or controller.

No. 59,404. Cigar Making Machine.

(Machine à faire les cigares)



The John R. Williams Company, New York, U.S.A., assignee of John Robert Williams, East Orange, New Jersey, U.S.A., 24th March, 1898; 6 years. (Filed 20th January, 1897.)

Claim.—1st. In a machine of the character described, the revoluble frame carrying the cigar, combined with the thimble receiving the head end of said cigar and at its outer side cut off at an angle to the longitudinal centre of the cigar, and the wrapper trimming knife arranged to move along the angular side of said thimble, substantially as set forth. 2nd. In a machine of the character described, the revoluble frame carrying the cigar, combined with the thimble in line with said frame and receiving the head end of the cigar, a knife co-operating with said thimble for trimming the projecting part of the wrapper, and means for moving said thimble inward toward the said revoluble frame to receive the head end of the cigar and outward therefrom to release the finished cigar, substantially as set forth. 3rd. In a machine of the character described, the revoluble frame to receive the cigar, and the thimble adjacent to the end of said frame to receive the head end of the cigar, combined with the knife for trimming the projecting portion of the wrapper, and the paste nozzle supplying paste to the exposed upper side of said wrapper adjacent to the head of the cigar, substantially as set forth. 4th. In a machine of the character described, the revoluble frame holding the cigar, and the thimble adjacent to the end of said frame and to receive the head end of the cigar, combined with the knife for trimming the wrapper at said thimble, and the paste nozzle having a widened discharge end for supplying paste to the exposed upper surface of the wrapper adjacent to the head of the cigar and in close proximity to the opening in said thimble, substantially as set forth. 5th. In a machine of the character described, the revoluble frame holding the cigar, and the thimble adjacent to the end of said frame to receive the head end of the cigar, combined with the knife for trimming the wrapper at said thimble, means for operating said knife, the movable paste nozzle adjacent to said thimble, means for supplying paste to said nozzle, and means for moving said nozzle downward adjacent to the thimble to supply paste to the exposed upper surface of the wrapper, substantially as set forth. 6th. In a machine of the character described, the revoluble frame holding the cigar, and the thimble adjacent to the end of said frame and receiving the head end of the cigar, combined with the knife for trimming the wrapper, means for operating said knife, the pivoted paste nozzle, means for supplying paste to said nozzle, and means intermediate said knife and nozzle whereby upon the descent of said knife to trim the wrapper said nozzle will also descend to supply paste to the exposed upper surface of the wrapper on the thimble, substantially as set forth. 7th. In a machine of the character described, the revoluble frame holding the cigar, and the thimble adjacent to the end of said frame and receiving the head end of the cigar, combined with the pivoted knife, means for operating said knife to trim the wrapper, the pivoted paste nozzle, means for supplying paste to said nozzle, the spring normally main-

taining the discharge end of said nozzle in its upward position, and the pin extending from said nozzle over the shank end of said knife whereby the upward movement of said shank end due to the depression of the blade of the knife will turn the discharge end of said nozzle downward to deliver the paste upon the exposed upper surface of the wrapper on the thimble, substantially as set forth. 8th. In a machine of the character described, the revolvable frame holding the cigar, and the thimble adjacent to the end of said frame and receiving the head end of the cigar, combined with the pivoted knife for trimming the wrapper, means for applying paste to the wrapper while held by said thimble, and means for moving said thimble toward the end of said revolvable frame to receive the head end of the cigar and away from said revolvable frame to release the cigar, substantially as set forth. 9th. In a machine of the character described, the revolvable frame holding the cigar, the thimble adjacent to the end of said frame to receive the head end of the cigar, and means for moving said thimble toward said frame to receive the head end of the cigar and away from said frame to release the cigar, combined with the pivoted knife for trimming the wrapper, means for operating said knife, and the paste nozzle adapted to discharge the paste upon the upper exposed surface of said thimble, substantially as set forth. 10th. In a machine of the character described, the revolvable frame holding the cigar, and the thimble adjacent to the end of said frame to receive the head end of the cigar, combined with the knife for trimming the wrapper overhanging said thimble, means for operating the knife, and means for applying paste to the upper exposed surface of the wrapper on said thimble, substantially as set forth. 11th. In a machine of the character described, the revolvable frame for receiving the cigar, the clamp carried by said frame for holding the cigar thereon, and means intermediate said clamp and the driving shaft for operating said clamp, combined with the thimble adjacent to the end of said frame for receiving the head end of the cigar, the knife for trimming the wrapper overhanging said thimble, means intermediate said knife and the driving shaft for operating the knife, means for applying paste to the wrapper held by said thimble, and means intermediate said frame and the driving shaft for operating the frame from the said shaft, substantially as set forth. 12th. In a machine of the character described, the revolvable frame holding the cigar, the clamp carried by said frame for retaining the cigar in said frame, the ejector carried by the frame below the cigar, and means for operating said clamp and ejector from the driving shaft, combined with the thimble adjacent to the end of said frame, the knife for trimming the leaf overhanging said thimble, means for operating said knife, from the driving shaft, and means also operated from the driving shaft for applying paste to the wrapper held by said thimble, substantially as set forth. 14th. In a machine of the character described, the revolvable frame for holding the cigar, the clamp for retaining the cigar in said frame, the trimming knives carried by said frame for trimming the tuck end of the cigar, and means for operating the movable one of said knives from the driving shaft, combined with the thimble adjacent to the end of said revolvable frame to receive the head end of the cigar, the knife for trimming the wrapper overhanging said thimble, and means for operating said knife from the driving shaft, substantially as set forth. 15th. In a machine of the character described, the revolvable frame holding the cigar, the clamp for retaining the cigar in said frame, the slide carried by said frame, the stationary knife carried by said slide, the movable knife carried by said slide for co-operating with the said stationary knife to trim the tuck end of the cigar, means intermediate said movable knife and the driving shaft for operating the former from the latter, and means for adjusting said slide in said frame in accordance with the various lengths of cigars, combined with the thimble adjacent to the end of said frame to receive the head end of the cigar, and the knife for trimming the wrapper overhanging said thimble, substantially as set forth. 16th. In a machine of the character described, the frame holding the cigar, the clamp carried by said frame for retaining the cigar therein, the ejector carried by said frame below the cigar, means for operating said clamp and ejector from the driving shaft, the stationary knife carried by said frame, the co-operating movable knife carried by said frame, and means intermediate said movable knife and the driving shaft for operating the former from the latter, combined with the thimble adjacent to the end of said frame to receive the head end of the cigar, and means for moving said thimble toward said frame to receive the head end of the cigar and away from said frame to release the cigar, substantially as set forth. 17th. In a machine of the character described, the revolvable frame holding the cigar, the clamp carried by said frame for retaining the cigar therein, the ejector carried by said frame below the cigar, means for operating said frame, clamp and ejector from the main driving shaft, the stationary cutter carried by said frame, the movable co-operating cutter carried by said frame for trimming the tuck end of the cigar, and means for operating said movable cutter from the driving shaft, combined with the thimble at the end of said frame to receive the head end of the cigar, the knife for trimming the wrapper

overhanging said thimble, a paste nozzle adjacent to said thimble for supplying paste to the wrapper held thereby, means for operating said thimble knife from the main driving shaft, means for forcing the paste from said nozzle from the main driving shaft, and means for moving said thimble toward said revolvable frame to receive the head end of the cigar and away from said frame to release the cigar, substantially as set forth. 18th. In a machine of the character described, the clamp carried by said frame for retaining the cigar therein, the ejector carried by said frame below the cigar the adjustable slide in said frame, the cutters carried by said slide for trimming the tuck end of the cigar, means for adjusting said slide, and means for operating the movable one of said cutters, said revolvable frame, said clamp and said ejector from the driving shaft, combined with the thimble adjacent to the end of said frame to receive the head end of the cigar, the pivoted knife for trimming the wrapper overhanging said thimble, means for operating said knife from the driving shaft, the pivoted paste nozzle carried by said thimble and adapted to discharge the paste upon the upper side of the wrapper held on said thimble, and means operated from the driving shaft for forcing the paste through said nozzle, substantially as set forth. 19th. In a machine of the character described, the revolvable frame for holding the cigar, the clamp carried by said frame, the ejector also carried by said frame, the shaft carried by the said frame and upon which said ejector is mounted, means for operating said frame from the driving shaft, and independent means intermediate the said shaft carried by the said frame and the main driving shaft for operating said shaft and through it said ejector, combined with the thimble adjacent to the end of said frame to receive the head end of the cigar; substantially as set forth. 20th. In a machine of the character described, the revolvable frame to receive the cigar, the clamp carried by said frame for holding the cigar therein, the ejector carried by said frame below the cigar, the parallel shafts carried by said frame and upon which said clamp and ejector are respectively mounted, means for operating said frame from the driving shaft, the slide mounted on said shafts within said frame, the cutters carried by said slide for trimming the tuck end of the cigar, and the movable one of which is mounted on one of said parallel shafts, means for adjusting said slide, and independent means for operating from the driving shaft the two shafts carried by said frame and through them said movable cutter and ejector, combined with the thimble at the end of said frame to receive the head end of the cigar, and means for operating said clamp from the driving shaft; substantially as set forth. 21st. In a machine of the character described, the revolvable frame to receive the cigar and being cylindrical at one end, the bearing for said end of said frame, the gear wheel upon said end of said frame and means for holding the cigar in said frame, combined with the thimble adjacent to the end of said frame to receive the head end of the cigar, gearing intermediate the said gear wheel and the driving shaft of the machine whereby said revolvable frame is caused to have a more rapid revolution than said driving shaft and to stop before said driving shaft has reached the end of its revolution, and means for stopping said driving shaft at the end of each of its revolutions, substantially as set forth. 22nd. In a machine of the character described, the revolvable frame holding the cigar, the thimble adjacent to the end of said frame to receive the head end of the cigar, and means intermediate said revolvable frame and the driving shaft of the machine for operating the latter from the former and imparting to said frame from said driving shaft a more rapid revolution than that of the shaft and stopping said frame before the driving shaft comes to a stop, and means for stopping said shaft at the end of each revolution, substantially as set forth. 23rd. In a machine of the character described, the revolvable frame for holding the cigar, the clamp carried by said frame for retaining the cigar therein, the ejector carried by said frame for ejecting the finished cigar, and thimble adjacent to the end of said frame for receiving the head end of the cigar, combined with means intermediate said frame and the main driving shaft for imparting a rapid revolution to said frame and then to stop said frame before the said driving shaft comes to a stop, and means intermediate said clamp and said driving shaft for operating said clamp after said frame has come to a stop, and means intermediate said ejector and said driving shaft for operating said ejector after said frame has come to a stop and after said clamp has been released from the cigar, substantially as set forth. 24th. In a machine of the character described, the revolvable frame holding the cigar, the clamp carried by said frame for retaining the cigar therein, the ejector carried by said frame for discharging the finished cigar therefrom, and the cutter carried by said frame for trimming the tuck end of the cigar, combined with the thimble adjacent to the end of said frame for receiving the head end of the cigar, means intermediate said revolvable frame and the main driving shaft for imparting a more rapid revolvable motion to said frame than that of said shaft and then stopping said frame before said shaft comes to a stop, and means intermediate said clamp, ejector and cutter and said shaft for operating the same from the shaft after said frame has come to a stop and before said shaft has come to a stop, substantially as set forth. 25th. In a machine of the character described, the revolvable frame holding the cigar, the clamp carried by said frame for retaining the cigar therein, the ejector carried by said frame for discharging the finished cigar therefrom, and the thimble adjacent to the end of said frame for receiving the head end of the cigar, combined with means intermediate said thimble

and the driving shaft of the machine for moving said thimble toward the frame to receive the head end of the cigar and then outward therefrom to release the finished cigar, means intermediate said driving shaft and said revoluble frame for imparting a more rapid revolution to said frame than that of said shaft and stopping said frame before said shaft comes to a stop, means intermediate said clamp and said shaft for operating said clamp from the shaft after said frame has come to a stop, and means intermediate said ejector and said shaft for operating said ejector from the shaft after the said frame has come to a stop, substantially as set forth. 26th. In a machine of the character described, the revoluble frame to receive the cigar, the clamp carried by said frame to retain the cigar therein, and the knife carried by said frame for trimming the tuck end of the cigar, combined with the thimble adjacent to said frame to receive the head end of the cigar, means intermediate said frame and the driving shaft for imparting a more rapid revolution to said frame than that of said shaft, means intermediate said knife and said shaft for operating the former from the latter to trim the tuck end of the cigar, and means intermediate said clamp and said shaft for releasing said clamp from the cigar after said frame has come to a stop and before the driving shaft has come to a stop, substantially as set forth. 27th. In a machine of the character described, the revoluble frame receiving the cigar, the clamp carried by said frame for retaining the cigar therein, the ejector carried by said frame for discharging the finished cigar therefrom, the thimble adjacent to said frame to receive the head end of the cigar, and the knife for trimming the wrapper overhanging said thimble, combined with means intermediate said revoluble frame and the driving shaft for imparting to the former a more rapid revolution than that of the shaft and stopping said frame prior to the stoppage of the shaft, means intermediate said knife and shaft for operating the former from the latter, means intermediate said clamp and shaft for operating the former from the latter, and means intermediate said ejector and said shaft for operating the former from the latter after said revoluble frame has come to a stop, substantially as set forth. 28th. In a machine of the character described, the revoluble frame to receive the cigar, means for holding the cigar therein, the thimble adjacent to the end of said frame to receive the head end of the cigar, and the cutters carried by said frame for trimming the tuck end of the cigar, combined with means intermediate said frame and the driving shaft for revolving the former from the latter, and means intermediate the movable one of said cutters and the driving shaft for operating the former from the latter, substantially as set forth. 29th. In a machine of the character described, the revoluble frame holding the cigar, the ejector carried by said frame for ejecting the finished cigar, the clamp carried by said frame for holding the cigar therein, the slide carried by said frame and adjustable therein, and the cutters carried by said slide for trimming the tuck end of the cigar, combined with the thimble adjacent to said frame for receiving the head end of the cigar, the knife for trimming the leaf overhanging said thimble, means for operating said knife, means for moving said thimble toward said frame to receive the head end of the cigar and then from said frame to release the cigar, means intermediate said frame and the driving shaft for imparting a more rapid revolution to said frame than that of said shaft and then stopping said frame before said shaft comes to a stop, means intermediate the movable one of said cutters and said shaft for operating the former from the latter, means intermediate said clamp and said shaft for operating the former from the latter, and means intermediate said ejector and said shaft for operating the former from the latter and after said frame has come to a stop, substantially as set forth. 30th. In a machine of the character described, the revoluble frame for holding the cigar, the clamp carried by said frame for ejecting the finished cigar therefrom, the parallel shafts in said frame, the slide mounted on said shafts, means for adjusting said slide on said shafts, the stationary cutter carried by said slide, and the movable cutter carried by said slide and keyed to one of said shafts, the other of said shafts being connected to said ejector, combined with the thimble adjacent to the said frame to receive the head end of the cigar, means intermediate said revoluble frame and the driving shaft for imparting a more rapid revolution to said frame than that of said shaft and stopping said frame prior to the stoppage of said shaft, independent means intermediate said parallel shafts and said driving shaft for operating the former from the latter, and means intermediate said clamp and the driving shaft for operating the former from the latter, substantially as set forth. 31st. In a machine of the character described, the revoluble frame for carrying or holding a cigar, a clamp for holding the cigar in said frame, and the thimble adjacent to the end of said frame to receive the head end of the cigar, the said thimble having its outer side at an angle to the longitudinal centre of the cigar clamp, combined with the knife for trimming the wrapper overhanging the outer angular edge of said thimble, the driving shaft, means for operating said revoluble frame from the driving shaft, means for applying paste to the wrapper on said thimble and means for operating the paste mechanism from the driving shaft, substantially as set forth. 3rd. In a machine of the character described, the revoluble frame for carrying or holding a cigar, a clamp for holding the cigar in said frame, the driving shaft, means for revolving said frame from the driving shaft, and the thimble adjacent to the end of said frame to receive the head end of said frame to receive the head end of the cigar, the outer side of said thimble being at an angle to the longitudinal centre of the cigar

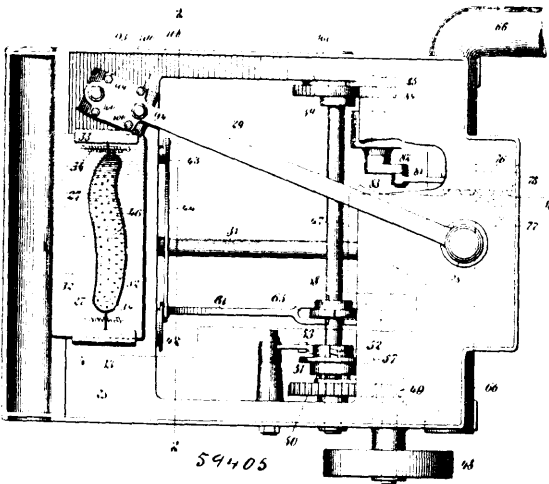
clamp, combined with the knife for trimming the wrapper overhanging the outer angular edge of said thimble, means for operating said knife from the main driving shaft, a nozzle for applying paste to the upper exposed surface of the wrapper on said thimble, a paste reservoir, a flexible tube connecting said nozzle and said reservoir, and means intermediate said reservoir and the driving shaft for forcing the paste therefrom through said flexible tube and said nozzle to the wrapper on said thimble, substantially as set forth. 33rd. In a machine of the character described, the revoluble frame holding the cigar, means for revolving said frame from the main driving shaft and the thimble adjacent to the end of said frame to receive the head end of the cigar, combined with the knife for trimming the wrapper overhanging the edge of said thimble, means for operating said knife from the main driving shaft, means for moving said thimble toward said frame to receive the head end of the cigar and then from said frame to release the finished cigar, the pivoted paste nozzle carried by said thimble, means for moving the discharge end of said nozzle downward to deliver the paste upon the wrapper held by the thimble and then upward therefrom, the paste reservoir, the flexible tube connecting said nozzle and said reservoir, and means intermediate said reservoir and the main driving shaft for forcing the paste from said reservoir through said flexible tube and nozzle to the wrapper held by said thimble, substantially as set forth. 34th. In a machine of the character described, the revoluble frame holding the cigar, means for revolving said frame from the driving shaft, the thimble adjacent to the end of said frame to receive the head end of the cigar, the knife for trimming the wrapper overhanging the edge of said thimble, and means for operating the said shaft, combined with a paste nozzle to direct the paste to the wrapper held by said thimble, the reservoir connected with said nozzle for supplying paste to the same, the piston in said reservoir and acting against the body of paste therein, the threaded stem carried by said piston, the threaded sleeve engaging said threaded stem, the ratchet on said stem and loosely keyed thereto, and means for imparting to said ratchet an intermittent motion from the driving shaft of the machine, whereby said ratchet is caused to turn said threaded stem and said threaded sleeve is enabled to move said threaded stem and its piston against the paste in said reservoir, substantially as set forth. 35th. In a machine of the character described, the revoluble frame holding the cigar, combined with the thimble receiving the head end of the cigar and the table on said thimble to receive the projecting portion of the wrapper, said table being inclined downward from a point above the longitudinal center of the point of the cigar, substantially as set forth. 36th. In a machine of the character described, the revoluble frame holding the cigar, combined with the thimble receiving the head end of the cigar, and table on said thimble to receive the loose portion of the wrapper, means for locking said table in its lower position to facilitate the introduction of the head of the cigar to the cavity in said thimble, means for freeing said table after the cigar is in position, and means for elevating the outer end of said table in order that said table may elevate the projecting portion of the wrapper on a line extending downward from the outer end of said thimble, substantially as set forth. 37th. In a machine of the character described, the revoluble frame holding the cigar, combined with the thimble receiving the head end of the cigar, the table on said thimble to receive the projecting portion of the wrapper, a spring imparting a normal upward tension to the outer end of said table, the catch for holding the outer end of table in its lower position, and the trimming knife for cutting off the wrapper overhanging the edge of said thimble and adapted to engage said catch and free the same from said table in order that the latter may spring upward, substantially as set forth. 38th. In a machine of the character described, the revoluble frame holding the cigar, and the thimble receiving the head end of the cigar, combined with the table carried by said thimble to receive the projecting portion of the wrapper, the catch for holding said table in its lower position to facilitate the introduction of the head of the cigar to said thimble, the spring imparting an upward tension to the outer end of said table, means for moving said thimble toward said frame to receive the end of the cigar and away from said frame to release the end of the cigar, means for engaging the outer end of said table with said catch when said thimble has moved outward from said revoluble frame, and means for freeing said table from said catch in order that its outer end may spring upward when said thimble is at its inward position adjacent to said revoluble frame and has received the head end of the cigar, substantially as set forth.

No. 59,405. Machine for Cutting Out Wrappers or Binders for Cigars, etc. (*Machine à couper les enveloppes et liens pour cigares, etc.*)

The John R. Williams Company, New York, U.S.A., assignee of John Robert Williams, East Orange, New Jersey, U.S.A., 24th March, 1898; 6 years. (Filed 20th January, 1898.)

Claim.—1st. In a machine of the character described, the die, movable table encompassing said die, and an suction apparatus connected with said die, combined with the oscillating arm, the pressure rollers carried thereby, the driving shaft, mechanism intermediate said shaft and said arm for moving the latter and said rollers across said die and arresting said arm at the end of each of its movements, and mechanism intermediate said shaft and said table, for securing

the lowering of said table for the passage of the pressure rollers over said die and the raising of said table thereafter and then the lower-



ing of said table, substantially as set forth. 2nd. In a machine of the character described, the die, the movable table encompassing said die, and air suction apparatus for holding the leaf on said die, combined with the oscillating arm, the pressure rollers carried by said arm, the driving shaft, means for automatically stopping said shaft at the end of each revolution, the means for manually starting said shaft after each stoppage thereof, mechanism intermediate said shaft and said arm for moving the latter and said rollers across said die and arresting said arm at the end of each of its movements, and mechanism intermediate said shaft and said table, for securing the lowering of said table for the passage of the pressure rollers over said die and the raising of said table thereafter, substantially as set forth. 3rd. In a machine of the character described, the die, the movable table encompassing said die, and air suction apparatus for holding the leaf on said die, combined with the oscillating arm, the pressure rollers carried by said arm, the driving shaft, means for automatically stopping said shaft at the end of each revolution, the means for manually starting said shaft after each stoppage thereof, mechanism intermediate said shaft and said arm for moving the latter and said rollers across said die and arresting said arm at the end of each of its movements, and mechanism intermediate said shaft and said table for securing the lowering of said table for the passage of the pressure rollers over said die and the raising of said table thereafter and then the lowering of said table, the mechanism being so arranged that said pressure rollers are moved and said table elevated and then lowered during each revolution of said driving shaft and that said rollers are moved to effect the cutting of the wrapper during the early part of the revolution of said shaft and are then arrested until said shaft starts to make another revolution, substantially as set forth. 4th. In a machine of the character described, the die, the movable table encompassing said die, and air suction apparatus for holding the leaf on said die, combined with means normally holding said table in its lower position, the oscillating arm, the pressure rollers carried by said arm, the driving shaft, means for automatically stopping said shaft at the end of each revolution, the means for manually starting said shaft after each stoppage thereof, mechanism intermediate said shaft and said arm for moving the latter and said rollers across said die and arresting said arm at the end of each of its movements, the cam on said shaft, and mechanism intermediate said cam and said table for raising said table after said rollers have passed across said die and maintaining said table in its elevated position a definite length of time and then permitting it to lower, substantially as set forth. 5th. In a machine of the character described, the die, the movable table encompassing said die, and air suction apparatus for holding the leaf on said die, combined with means normally holding said table in its lower position, the oscillating arm, the pressure rollers carried by said arm, the driving shaft, means for automatically stopping said shaft at the end of each revolution, the means for manually starting said shaft after each stoppage thereof, mechanism intermediate said shaft and said arm for moving the latter and said rollers across said die and arresting said arm at the end of each of its movements, the cam on said shaft, the arm acted on by said cam and hung by a pivot at one end, and means intermediate the other end of said arm and said table for raising said table after said rollers have passed across said die and maintaining said table in its elevated position a definite length of time and then permitting it to lower, substantially as set forth. 6th. In a machine of the character described, the die, the table encompassing said die, and air suction apparatus for holding the leaf on said die, combined with the driving shaft, means for automatically stopping said shaft at the end of each revolution, means for starting said shaft after each stoppage thereof, the oscillating arm, the pressure rollers carried thereby, the mechanism intermediate said shaft and said arm for

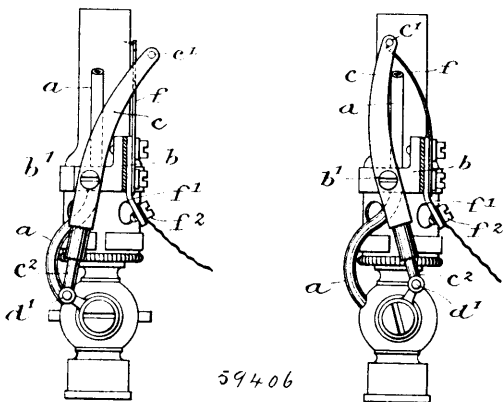
moving the latter and said rollers across said die and arresting said arm at the end of each of its movements, substantially as set forth. 7th. In a machine of the character described, the die, the table encompassing said die, and air suction apparatus for holding the leaf on said die, combined with the driving shaft, power mechanism therefor, the oscillating arm, the pressure rollers carried thereby, and mechanism, substantially as described, intermediate said shaft and said arm for moving the latter and said rollers across said die and arresting said arm at the end of each of its movements without interfering with the continuing of said shaft on its movement, substantially as set forth. 8th. In a machine of the character described, the die, and air suction apparatus for holding the leaf thereon, combined with the driving shaft, power mechanism therefor, the oscillating arm, the pressure rollers carried thereby, and mechanism substantially as described intermediate said shaft and said arm for moving the latter and said rollers across said die and arresting said arm at the end of each of its movements without interfering with the continuing of said shaft on its movement, substantially as set forth. 9th. In a machine of the character described, the die, and air suction apparatus for holding the leaf thereon, combined with the driving shaft 47, the gear wheel 59 on said shaft, the locking plate 160 on said shaft and having the regular surface 164, the auxiliary shaft 83, the pinion 84 on said auxiliary shaft 83, the pinion 84 on said auxiliary shaft, the locking plate 85 on said auxiliary shaft and having a concave surface to engage the convexity of said regular surface 164, the oscillating arm 29, the pressure rollers 30 carried by said arm, and means intermediate said shaft 83 and arm 29 for imparting motion from the former to the latter, substantially as set forth. 10th. In a machine of the character described, the die and air suction apparatus for holding the leaf thereon, combined with the driving shaft 47, the gear wheel 59 on said shaft, the locking plate 160 on said shaft and having the regular surface 164, the auxiliary shaft 83, the pinion 84 on said auxiliary shaft, the locking plate 85 on said auxiliary shaft and having a concave surface to engage the convexity of said regular surface 164, the oscillating arm 29, the pressure rollers 30 carried by said arm 29, the sliding rack 76 engaging said segment 77 on said arm 29, the sliding rack 75 engaging said segment and the crank and pitman connecting said rack 75 with said auxiliary shaft 83, substantially as set forth. 11th. In a machine of the character described, the die and air suction apparatus for holding the leaf thereon, combined with the driving shaft 47, the gear wheel 59 on said shaft, the locking plate 160 on said shaft and having the regular surface 164, recesses 161 and 162, and toe 163, the auxiliary shaft 83, the pinion 84 on said auxiliary shaft, the locking plate 85 on said auxiliary shaft and having the concave surfaces at its opposite ends to engage the convexity of said regular surface 164, the oscillating arm 29, pressure rollers 30 carried by said arm, and means intermediate said shaft 83 and said arm 29 for imparting motion from the former to the latter, substantially as set forth. 12th. In a machine of the character described, the die and air suction apparatus for holding the leaf thereon, combined with the arm 29, the pressure roller frame 93 carried by said arm, the bolts 94 supporting said frame 93 from said arm and engaging at their lower ends threaded apertures in said frame and passing through free apertures in said arm 29, the adjustable stop of said frame 93, and the pressure roller 30 carried by said frame 93, said bolts 94 being at the longitudinal centre of said frame 93 and said stop screws 97 being at opposite sides of said centre, substantially as set forth. 13th. In a machine of the character described, the die and air suction apparatus for holding the leaf thereon, combined with the arm 39, the pressure roller frame carried by said arm, means for adjusting said frame on said arm, the pressure rollers 30 carried by said frame, the yokes 99 extending transversely over said rollers 30 and having the contact rollers 103, means suspending said yokes 99 from said frame 93 and upwardly yielding springs 102 intermediate the ends of said yokes and said frame, substantially as set forth. 14th. In a machine of the character described, the die and air suction apparatus for holding the leaf thereon, combined with the arm 29, the pressure roller frame 93 carried by said arm, the bolts 94 engaging the top of said frame 93 and passing through free apertures in said arm 29, the series of screw stops 97 passing downward through said arm 29 and impinging the top of said frame 93, the pressure rollers 30 having a central opening and carried by said frame 93, the shaft 90 journaled in the ends of said frame 93 and passing through openings in said rollers 30 but being less in diameter than the diameter of said openings, the yokes 99 passing transversely over said rollers 30, the contact rollers 103 carried by said yokes at opposite sides of the longitudinal center of said rollers 30, the screws 100 supporting said yokes, 99, and the springs 102 on said screws 100 intermediate the ends of said yokes 99 and the top of said frame 93, substantially as set forth.

59,406. Electric Igniting Device for Gas Burners.
(Appareil électrique pour éteindre le gaz.)

The Universal Gaszunder Gesellschaft, Gesellschaft mit Beschränkter Haftung, No. 3 Bleichen Cucke, Hamburg, Germany, assignee of Gottfried Ferdinand Krieger, No. Fl. Annenstrasse, Kiel, Germany, 24th March, 1898; 6 years. (Filed 19th July, 1897.)

Claim.—1st. An electric igniting attachment for gas burners consisting essentially of a clip or strap adapted to be secured to the

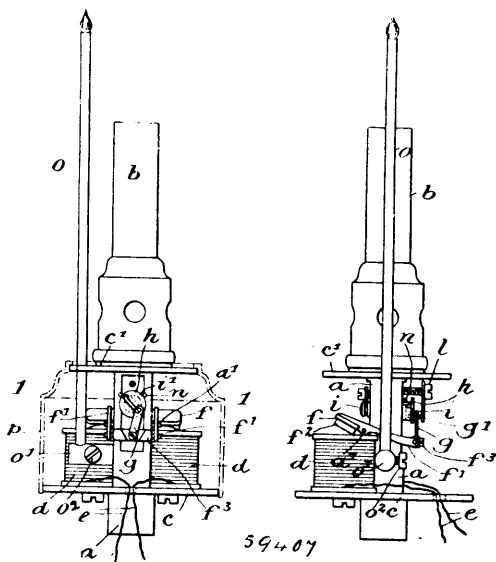
burner, a spring and a two-armed rock-lever, respectively secured to and pivoted on said strap, one of the arms of said lever provided



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with a suitable contact adapted to impinge upon the spring and flex the same and having its other arm constructed telescopically and adapted for connection with the plug of a gas-cock substantially as and for the purpose set forth. 2nd. An electric igniting attachment for gas burners consisting essentially of a clip or strap adapted to be secured to the burner, a spring provided at its free end with a recess or cutaway portion *f'* and a two-armed rock-lever respectively secured to and pivoted on said strap, one of the arms of said lever provided with a suitable contact adapted to impinge upon the spring and flex the same and having its other arm constructed telescopically and adapted for connection with the plug of a gas-cock substantially as and for the purpose set forth.

No. 59,407. Electric Igniting Device for Gas Burners.
(Appareil électrique pour éteindre le gaz.)



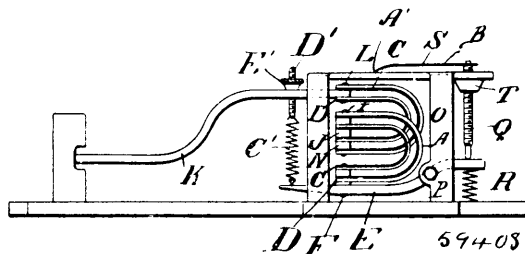
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The Universal Gasminder Gesellschaft, Gesellschaft and Beschränkter Haftung, No. 3 Bleichen Cucke, Hamburg, Germany, assignee of Gottfried Ferdinand Krieger, No. F Amnenstrasse, Kiel, Germany, 24th March, 1898; 6 years. (Filed 19th March, 1897.)

Claim. 1st. The combination with the main burner, the igniter burner, gas passages leading thereto respectively, and a normally closed valve in the main burner gas passages, of an electro-magnet in a suitable electric circuit an armature held normally retracted from its magnet, an armature lever, and a link connected therewith provided with a stud working in a diagonal groove in the end of the valve stem, for the purpose set forth. 2nd. The combination with the main burner, the igniter burner, gas passages leading thereto respectively, and a normally closed valve in the main burner gas passages, of an electro-magnet in a suitable electric circuit, an armature lever and a link connected therewith and provided with a stud working in a diagonal groove in the end of the valve stem, said groove having at each end a lateral recess, for the purpose set forth. 3rd. The combination with the main burner, the igniter burner, gas passages leading thereto respectively, and a normally closed valve

in the main burner gas passages of an electro-magnet in a suitable electric circuit, an armature held normally retracted from its magnet, an armature lever, a link connected therewith and provided with a stud working in a diagonal groove in the end of the valve stem, said groove having at each end a lateral recess, stops on the valve stem, and fixed stops co-operating therewith to limit the rotation of said stem in one or the other direction, for the purpose set forth.

No. 59,408. Thermostat. (Thermostat.)

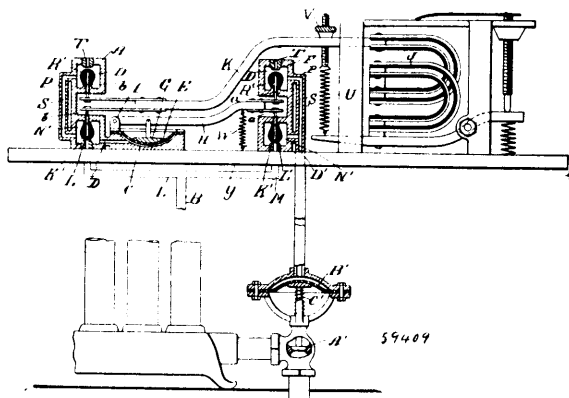


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The Davis and Roesch Temperature Controlling Company, New York, U.S.A., assignee of Alfred Roesch, Bridgeport, Connecticut, U.S.A., 24th March, 1898; 6 years. (Filed 11th January, 1898.)

Claim.—1st. In a thermostat for regulating temperature, the combination of two or more compound or thermostatic bars in a single series, two or more series of compound bars secured in sets to each other, a lever for supporting the several series of compound bars, a valve-actuating arm connected with the free ends of the second or outer series of said compound bars, and means for adjusting the supporting lever of said compound bars, substantially as and for the purpose specified. 2nd. In a thermostat for regulating temperature, the combination of two or more compound or thermostatic bars in a single series, a lever for holding and adjusting said series of compound bars, a screw for adjusting said lever in one direction, a counteracting-spring for supporting said lever against the bearing end of said screw, an indicating arm for turning and adjusting said screw against said lever, and a dial located beneath said arm to indicate the proper adjustment of said screw, substantially as and for the purpose specified. 3rd. In a thermostat for regulating temperature, the combination of two or more compound or thermostatic bars in a single series, two or more series of compound bars secured in sets to each other, a lever for holding and adjusting said series of compound bars, a screw for adjusting said lever in one direction, a counteracting-spring for supporting said lever against the bearing end of said screw, an indicating arm for turning and adjusting said screw against said lever, a dial located beneath said arm to indicate the proper adjustment of said screw, substantially as and for the purpose specified. 4th. In a thermostat for regulating temperature, the combination of two or more compound or thermostatic bars in a single series, two or more series of compound bars secured in sets to each other, a lever for holding and adjusting said series of compound bars, a screw for adjusting said lever in one direction, a counteracting-spring for supporting said lever against the bearing end of said screw, an indicating arm for turning and adjusting said screw against said lever, a dial located beneath said arm to indicate the proper adjustment of said screw, a valve-actuating arm secured to the free end of the second or outer series of compound bars, a spring communicating between said actuating-arm and the supporting lever of said compound bars, and means for regulating the tension of said counteracting-spring between said actuating-arm and supporting lever, all substantially as and for the purpose specified.

No. 59,409. Air Controlling Valve Mechanism.
(Mecanisme de soupape actionné par l'air.)



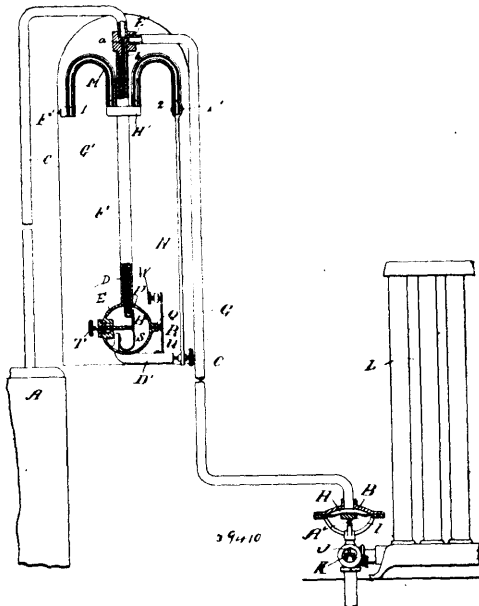
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The Davis and Roesch Temperature Controlling Company, New York, U.S.A., assignee of Alfred Roesch, Bridgeport, Connecticut, U.S.A., 24th March, 1898; 6 years. (Filed 11th January, 1898.)

Claim.—1st. In an air-controlling device for a heat-regulating system the combination of a primary or inlet air-chamber provided with an inlet air-duct, a secondary or outlet air-chamber provided with an air-duct communicating with the diaphragm-chamber of a

steam-controlling valve, an air-duct communicating between said primary and secondary air-chambers, two two-faced elastic air-controlling valves, one located in each of said air-chambers and provided with protruding valve-stems one face of each of said two-faced elastic valves being adapted to close its seat and the other face to close the space between said stem and their bearing-walls and means for actuating said air-controlling valve substantially as and for the purpose specified. 2nd. In an air-controlling device for heat regulating systems, the combination of a primary air-controlling valve mechanism provided with an air inlet air duct, and both inlet and outlet controlling valves, a diaphragm and diaphragm chamber, an air duct communicating between said primary air-controlling valve mechanism and said diaphragm chamber, whereby the air is caused to first pass through the primary valve mechanism, by which it is controlled, before it enters said diaphragm chamber, a valve actuating arm communicating from an actuating thermostat with the protruding valve stems of said air-controlling valves, a secondary air-controlling valve mechanism provided with an inlet air duct and inlet and outlet air-controlling valves, a diaphragm plate and lever communicating between the diaphragm and the protruding valve stems of said secondary air-controlling valve mechanism, an outlet duct communicating between said secondary air-controlling valve mechanism and the actuating mechanism of a steam controlling valve, all substantially as and for the purpose specified. 3rd. In an air-controlling device for heat regulating systems the combination of a primary air-controlling valve mechanism provided with an inlet air duct, and both inlet and outlet air-controlling valves, a diaphragm and diaphragm chamber, an air duct communicating between said primary air-controlling valve mechanism and said diaphragm chamber, whereby the air is caused to first pass through the primary valve mechanism by which it is controlled, before it enters said diaphragm chamber, a valve actuating arm communicating from an actuating thermostat with the protruding valve stems of said air-controlling valves, an air-controlling valve mechanism provided with air-controlling valves and an inlet air duct, both of said inlet air ducts to said air-controlling valve mechanisms being connected with a single supply duct, a valve actuating lever communicating from said diaphragm with the protruding ends of the valve stems of said secondary air-controlling valve mechanism, a spring connected with the free end of said lever and the supporting bed plate, said lever being adapted to be moved by the action of air in one direction and the action of said spring in the opposite direction, as the air is permitted to enter and escape, an outlet air duct communicating between said secondary air-controlling valve mechanism and the actuating mechanism of a steam controlling valve, all substantially as and for the purposes specified.

No. 59,410. Temperature Regulator.
(*Régulateur de température.*)



located within said vibratory air chamber and adapted to be actuated by the vibratory movement of said chamber and to control the admission of air thereto, an escape air duct communicating from the interior of said chamber, an exterior valve adapted also to be actuated by the vibratory movement of said air chamber and to control the escape of air therefrom, and a thermostat adapted, as it is moved by various changes of temperature, to actuate said vibratory air chamber, substantially as and for the purpose specified. 2nd. In a temperature regulator, the combination of a vibratory air chamber, a flexible air duct communicating between said vibratory air chamber and an air reservoir, a stationary or rigid duct communicating from the exterior of said vibratory air chamber, with a piston or diaphragm chamber, an inlet air controlling valve, a yielding or flexible support therefor, located within said vibratory air chamber and adapted to be actuated by the vibratory movement of said chamber, and to control the admission of air thereto, an escape air duct communicating from the interior of said air chamber, an exterior air valve, a yielding or flexible support therefor, located upon the exterior of said vibratory air chamber and adapted to be actuated by the vibratory movement of said chamber, and to control the escape of air therefrom, and a thermostat adapted, as it is moved by the varying changes of temperature, to actuate said vibratory air chamber, substantially as and for the purpose specified. 3rd. In a temperature regulator, the combination of a vibratory air chamber, a flexible air duct communicating between said vibratory air chamber and an air reservoir, a stationary or rigid duct communicating from the exterior of said vibratory air chamber, with a piston or diaphragm chamber, an inlet air controlling valve, a yielding or flexible support therefor, located within said vibratory air chamber and adapted to be actuated by the vibratory movement of said air chamber, and to control the admission of air thereto, an adjustable hand screw communicating through the walls of said vibratory air chamber with, and adapted to adjust the flexible or yielding support of said inlet air controlling valve, an escape air duct communicating from the interior of said air chamber, an exterior air valve, a yielding or flexible support therefor, located upon the exterior of said vibratory air chamber and adapted to be actuated by the vibratory movement of said chamber, and to control the escape of air therefrom, an adjustable hand screw having a stationary bearing support, located upon the exterior of said air chamber and adapted to adjust the yielding or flexible support of said air controlling escape valve, and a thermostat adapted, as it is moved by the varying changes of temperature, to actuate said vibratory air chamber, substantially as and for the purpose specified. 4th. In a temperature regulator, the combination of a vibratory air chamber, a flexible air duct communicating between said vibratory air chamber and an air reservoir, a stationary or rigid duct located in said flexible duct, communicating from the exterior of said vibratory air chamber with a piston or diaphragm chamber, an inlet air-controlling valve, a yielding or flexible support therefor located within said vibratory air chamber and adapted to be actuated by the vibratory movement of said chamber and to control the admission of air thereto, an adjustable hand-screw communicating through the walls of said vibratory air chamber and adapted to adjust, the flexible or yielding support of said inlet air-controlling valve, an escape air duct communicating from the interior of said air chamber, an exterior air valve, a yielding or flexible support therefor located upon the exterior of said vibratory air chamber and adapted to be actuated by the vibratory movement of said chamber and to control the escape of air therefrom, an adjustable hand-screw having a stationary bearing support located upon the exterior of said air-chamber and adapted to adjust the yielding or flexible support of said air-controlling escape valve, a thermostat adapted as it is moved by the varying changes of temperature to actuate said vibratory air chamber, and an adjustable hand-screw supported from the actuating arm of said thermostat and adapted to be adjusted in its relation to the bearing surface of said vibratory chamber, said yielding or flexible supports being respectively adjusted by said bearing screws as to cause the escape valve of said air chamber to close before the inlet valve is opened as said chamber is moved in one direction, and the inlet valve to close before the escape valve is opened as said chamber is moved in the opposite direction, all substantially as and for the purposes specified.

No. 59,411. Carpet-Sweeper. (*Balayeuse de tapis.*)

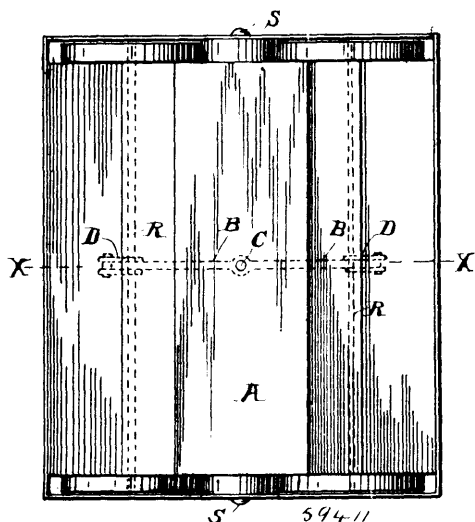
The Bissell Carpet-Sweeper Company, assignee of Walter J. Drew, Grand Rapids, Michigan, U.S.A., 24th March, 1898; 6 years. (Filed 21st February, 1898.)

Claim.—1st. In a carpet-sweeper, the combination with the case and driving-wheels, of a pivoted bar or rod pivotally supporting the case by an operative connection with the driving-wheels when said driving-wheels rest upon the floor or carpet, substantially as described. 2nd. The combination of the case, a bent bar or rod pivoted to the case, driving-wheels journaled on axles, and links D D connecting the said bar or rod to said axles, substantially as described. 3rd. In a carpet-sweeper, the combination of the brush-roller provided with an annular depression or groove as *l*, a suitable journal-bearing, and a guard having its periphery extending within the groove for the purpose of preventing threads and the like from winding around the bearing, substantially as described. 4th. In

The Davis and Roesch Temperature Controlling Company, New York, U.S.A., assignee of Alfred Roesch, Bridgeport, Connecticut, U.S.A., 24th March, 1898. (Filed 11th January, 1898.)

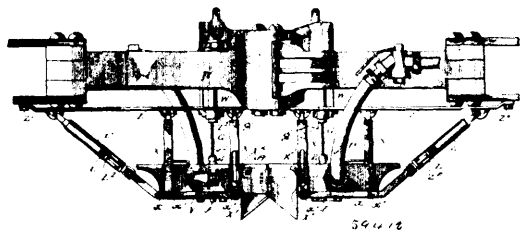
Claim.—1st. In a temperature regulator, the combination of a vibratory air chamber, a flexible air duct communicating between the vibratory air chamber and the air reservoir, a stationary or rigid duct communicating from the interior of said vibratory air chamber with a piston or diaphragm chamber, an inlet air valve

combination with a brush-roller provided with a groove, as described, a guard having its periphery extending into the groove, a suitable



pintle or journal, a strip as C, and suitable means for attaching the guard to the said strip, substantially as described.

No. 59,412. Brake Coupling. (Joint de frein.)



William H. Hoops and J. Henry Vail, both of Muscatine, Iowa, U.S.A., assignee of William J. Pugh, Chicago, Illinois, U.S.A., 24th March, 1898; 6 years. (Filed 16th February, 1898.)

Claim.—1st. In an automatic fluid pressure coupling, the combination of the opposite similar interlocking heads, each having a female portion and a hollow male portion, a jointing plug in the male portion, springs for moving the jointing plug outward, an air passage in the head, a valve in said air passage, and a rod for operating said valve projecting forward in the female portion and adapted to engage the end of the male portion of the opposite coupling so as to open the valve when the heads interlock, and so as to close the valves when the heads disengage, and means for disengaging said rod from the male portion of the heads after the valve is closed, substantially as and for the purpose described. 2nd. In an automatic fluid pressure coupling, the combination of the opposite similar interlocking heads each having a male and a female portion substantially as described, an air passage in the male portion, a jointing plug in the male portion communicating with said air passage, a rotary valve in said passage, a hooked rod for turning said valve projecting into the female portion and adapted to engage a hook on the end of the male portion of the opposite coupling, and a bevel for causing the rod to disengage the male portion after the valve is closed, substantially as and for the purpose described. 3rd. In an automatic fluid pressure coupling, the combination of the opposite similar interlocking heads, each having a hollow male portion, a jointing plug in the male portion, springs for moving the jointing plug outward, a flexible pipe connection between the jointing plugs and air passage in the head, a valve in said air passage, and a rod for operating said valve projecting forward in the female portion and adapted to engage the end of the male portion of the opposite coupling so as to open the valve when the heads interlock, and so as to close the valves when the heads disengage, and means for disengaging said rod from the male portion of the heads after the valve is closed, and means for separating the jointing plugs laterally, as the heads separate, all substantially as and for the purpose set forth. 4th. In an automatic fluid pressure coupling, the combination of the interlocking heads, the air passages therein, the valves in said passages, and means for operating said valves substantially as described, with a sliding plate or valve adapted to close the outlet of the air passage in the heads when they are disconnected to prevent the entrance of dust, etc.,

substantially as and for the purpose described. 5th. In an automatic fluid pressure coupling, the combination of the interlocking heads, each having a male and female portion, a jointing plug in the male portion communicating with the air passage, a valve in said air passage and means for operating said valve, with a sliding valve or cover for the outlet in the jointing plug, means for moving it out of the way when the heads are coupled, and for moving it back to place when the heads are disengaged, substantially as described. In an automatic fluid pressure coupling, the combination of the opposite similar interlocking heads, each having a hollow male portion communicating with the air passage, a valve in said air passage, a sliding cover for the outlet of the air passage, and connections between said cover and valve whereby when the valve is opened the cover is withdrawn, substantially as and for the purpose described. 7th. In an automatic fluid pressure coupling, the combination of the interlocking similar heads, each having a hollow male portion, a jointing plug therein communicating with the air passage in the body of the head, a main valve in said passage, a sliding valve or cover for the outlet of the plug, a sliding rod for operating said main valve having a pin engaging a slotted lug in said cover, whereby when the valve is opened the cover is drawn out of the way, all substantially as and for the purpose set forth. 8th. In an automatic fluid pressure coupling, the combination of the opposite similar interlocking heads, each having a male and female portion, substantially as described, an air passage in the male portion, a jointing plug in the male portion communicating with said air passage, a rotary valve in said passage, a hooked rod for turning said valve projecting into the female portion and adapted to engage a hook on the end of the male portion of the opposite coupling, and a bevel for causing the rod to disengage the male portion after the valve is closed, with a valve for closing the outlet of the jointing plug, and connection substantially as described, between said cover valve and the said rod, all substantially as and for the purpose set forth. 9th. In an automatic fluid pressure coupling, the combination of the head provided with an air passage, a valve therein, a rod for operating said valve adapted to be actuated by the opposite head substantially as described, a spring adapted to open said valve if the heads are pulled apart accidentally, and means substantially as described, for keeping said spring out of action while the parts are in normal condition, for the purpose and substantially as described. 10th. In an automatic fluid pressure coupling, the combination of the head provided with an air passage, a valve therein, mechanism for opening and closing said valve automatically by the action of the opposite head in coupling and uncoupling, with means substantially as described, for automatically opening said valve if the heads are pulled apart because of accident, substantially as and for the purpose described. 11th. In an automatic fluid pressure coupling, the combination of the head provided with an air passage, a valve therein, mechanism for opening and closing said valve automatically by the action of the opposite head in coupling and uncoupling, with means substantially as described, for automatically opening said valve if the heads are pulled apart because of accident, and means, substantially as described, for keeping said means out of operative position when the parts are in normal working condition, for the purpose and substantially as described. 12th. In an automatic fluid pressure coupling, the combination of the opposite similar heads, each having a hollow male portion provided with an air passage, a valve therein, the hooked rod as E for operating said valve adapted to be actuated by the opposite head, a spring H adapted to open said valve should the heads be accidentally pulled apart, a rod F adapted to prevent said spring engaging rod E when the parts are in normal working condition or relation, and a vertically movable bar J adapted to engage and shift rod F so as to cause it to throw spring H out of operative position when the devices are to be uncoupled in ordinary working, substantially as and for the purpose set forth. 13th. In an automatic fluid pressure coupling, the combination of the coupling heads having an air passage, a rotary valve therein, a rod as E for operating said valve, a spring H adapted to engage rod E to open said valve, and a rod as F lying beside rod E and adapted to prevent spring H engaging the latter, for the purpose and substantially as described. 14th. In an automatic fluid pressure coupling, the combination of the coupling head having an air passage, a rotary valve therein, a rod as E for operating said valve, a spring H adapted to engage rod E to open said valve, and a rod as F lying beside rod E adapted to prevent spring H engaging the latter, and the beveled bar J adapted to shift rod F so as to cause it to control spring H as described, with the locking pin of the draft draw-bar, the clutch pivoted thereto, and the rod sliding through clutch and connected to bar J, whereby bar J is raised with the locking pin, all substantially as and for the purpose set forth. 15th. The combination of the head having hollow male portion A², and female portion A¹, with the spring retracted plug B in part A¹, a flexible connection between said plug and an air passage in the body of the head, the valve D in said passage, the plate D¹, and hooked rod E for operating said valve, all substantially as and for the purpose described. 16th. The combination of the head having hollow male portion A², and female portion A¹, with the spring retracted plug B in part A¹, a flexible connection between said plug and an air passage in the body of the head, the valve D in said air passage, the plate D¹, and hooked rod E for operating said valve, with the sliding cover valve C, engaged by a pin on rod E, all substantially as and for the purpose described. 17th. The combination of the head having hollow male portion A², and the female portion A¹,

with the spring retracted plug D in part A¹, a flexible connection between said plug and an air passage in the body of the head, the valve D in said air passage, the plate D¹ and hooked rod E for operating said valve, with the spring H, the double-beveled rod F for throwing said spring out of engagement with rod E, and means for operating rod F, all substantially as and for purpose described.

18th. The combination of the head having hollow male portion A², and female portion A¹, with the spring retracted plug B in part A¹, a flexible connection between said plug and an air passage in the body of the head, the valve D in said air passage, the plate D¹, and hooked rod E for operating said valve, with the sliding cover valve c, having lug c¹, engaging by a pin on rod E, with the spring H adapted to engage rod E and close the valve, the spring actuated double-beveled rod F underlying spring H and adapted to throw it out of engagement with rod E, and means for properly shifting rod F, all substantially as and for the purpose described.

19th. The herein described packing ring b, having lateral flanges b¹, provided with flaring flange b², for the purpose and substantially as described.

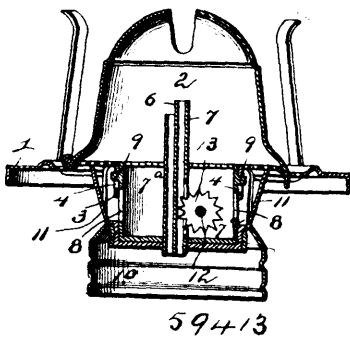
20th. The herein described packing ring b, for the purpose described, having lateral flanges b¹, b², at its ends, and a flaring flange b³, substantially as described.

21st. The combination of the draw bar, the plate Z suspended thereunder, the pair of swinging shackles X, X, suspended from said plate, the bars x connecting the shackles, the telescoping plunger and tube connecting bars x to the plate, and the cushioning spring in the tube, with the fluid pressure coupling supported in said shackles, and the bolts X¹, thereon engaging slots X², in the front shackle, all substantially as and for the purpose described.

22nd. The combination of the opposite heads A, each having a hollow male portion as A², and female portion as A¹, substantially as described, a valve D in the hollow passage in part A², an angular plate D¹ on the valve D, and a spring D² pressing against the edge of said plate for throwing and holding the valve fully open or closed, all substantially as described.

23rd. The combination of the head having hollow male portion A², and female portion A¹, with the spring retracted plug B in part A¹, a flexible connection between said plug and an air passage in the body of the head the plate D¹ and hooked rod E for operating said valve, and the spring D² bearing against the edge of said plate to throw and hold the valve fully open and closed, all substantially as and for the purpose described.

No. 59,413. Lamp Burner. (Bec de lampe.)



Richard L. Coburn, Ella H. Roberts, and Mrs. Eliza B. Roberts, all of Roanoke, Virginia, U.S.A., 24th March, 1898; 6 years. (Filed 18th January, 1898.)

Claim.—1st. In a lamp burner, the combination of a one-piece gallery or like support, and a wick tube having detachable connection with the gallery or support and composed of separable sections which are held closed by the said gallery when the parts are assembled, substantially as and for the purpose set forth.

2nd. In a lamp burner, the combination of a one-piece gallery or like support, and a wick tube having detachable connection therewith and composed of complimentary sections hinged together at one edge and having their longitudinal edges flanged and held closed by the gallery when the parts are fitted together, substantially as and for the purpose set forth.

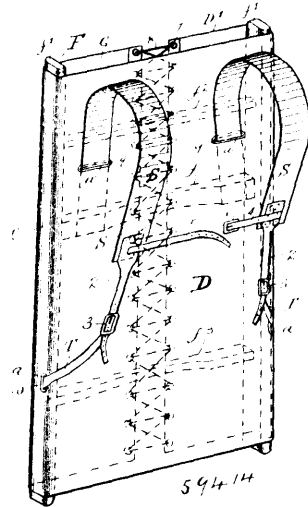
3rd. In a lamp burner, the combination of a one-piece gallery or like support, a wick tube having detachable connection therewith and composed of separable sections which are held together by the gallery, and a drum composed of corresponding parts each applied to a corresponding section of the wick tube and provided with openings for the circulation therethrough of air, substantially as set forth.

4th. In a lamp burner, the combination of a gallery or like support, a wick tube detachably connected therewith and provided with a drum, and a series of supports concentric with the drum and connected therewith at their lower ends, and having their upper extremities spreading so as to engage with the gallery at points distant from the sides of the drum, substantially as set forth for the purpose described.

5th. A lamp burner comprising a gallery having a depending collar formed at diametrically opposite points with bayonet-shaped slots, a wick tube composed of comple-

mentary sections hinged together, a sectional drum secured to the respective sections of the wick tube and provided with openings for the circulation of air therethrough, lugs at the outer sides of the parts of the drum and adapted to co-operate with the aforesaid bayonet slots, supports having connection with the drum and adapted to engage with the gallery, and a wick-raising mechanism applied to one of the parts of the drum, substantially as specified.

No. 59,414. Pack Saddle. (Bât.)



John M. Lines and John A. Schoenberg, assignees of Stephen Muloyhill, all of Seattle, Washington, U.S.A., 24th March, 1898; 6 years. (Filed 27th November, 1897.)

Claim. 1st. A pack-saddle, comprising a frame substantially of rectangular form and rigid construction, a cover thereabout, composed of suitable textile material, means for drawing said cover taut, and means for supporting said saddle, substantially as shown and described.

2nd. A pack-saddle comprising a frame formed of opposite stiles and transverse rails, a cover of textile material thereabout, means for drawing said cover taut, means for binding a pack upon one side of said frame and cover, and means for supporting said saddle with the opposite side cover contacting the back, substantially as shown and described.

3rd. A pack-saddle comprising a saddle-frame formed of opposite stiles and transverse rails of less depth than the stiles, cover of textile material about said frame, means adapted to draw said cover taut, said stiles projected below the bottom of said rails and cover, means attached to said frame for the lashing of a pack thereon, and means to support said saddle, substantially as shown and described.

4th. A pack-saddle comprising a saddle-frame formed of opposite stiles, a top-rail, a bottom rail and a strap-rail all of less depth than the stiles, a cover of textile material about said frame, lacing to draw said cover taut, means to secure a pack at one side, and means to support said saddle with the opposite side or cover contacting the back, substantially as shown and described.

5th. A pack saddle having a frame of rigid construction, a flexible cover drawn taut and at opposite sides thereof, said cover adapted to support a pack from contact with the back, and means for supporting said saddle, substantially as shown and described.

6th. A pack-saddle having a frame of substantially rectangular form and little depth, sides therefore composed of a single section of textile material drawn taut about said frame, means for securing a pack to said frame at one side and means for supporting said saddle with the opposite side of textile material contacting the back, substantially as shown and described.

7th. A pack-saddle having a frame comprising stiles separated by rails of less depth, side covers thereof of flexible material drawn taut upon said frame, means for securing a pack to one side of said frame, and means for supporting said saddle upon a person with the opposite side cover contacting the back, substantially as shown and described.

8th. A pack-saddle comprising a frame of rigid construction, a cover for the sides of said frame composed of textile material, means for securing a pack at one side of said saddle and means for supporting said saddle, said cover adapted to sustain the pack and frame from the back and provide flexible contact for the back, substantially as shown and described.

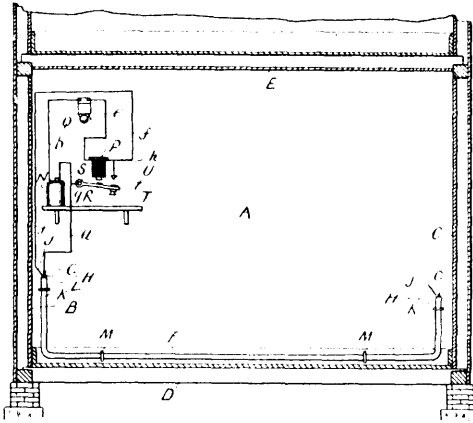
9th. The combination with the saddle-frame substantially as herein described, of the flexible cover for opposite sides thereof and means for drawing said cover taut, substantially as shown and described.

10th. The combination with the saddle-frame comprising opposite stiles, a top-rail, a bottom-rail and a strap rail, of a cover of textile material for opposite sides thereof, means to draw same taut, bind-

ing-rings secured to said frame, and shoulder-straps to said strap-rail having adjustable connection with said stiles, substantially as shown and described. 11th. A pack-saddle comprising a saddle-frame F, having screw-eyes E, with binding-rings R, therein, shoulder-straps S, and side-straps T, adjustably connected and attached thereto, and breast-straps 4 and 5 connecting said shoulder-straps, a saddle-cover C, thereabout of textile material with facing therefor, said cover apertured to receive said eyes and provided with incisions to receive said straps, substantially as shown and described. 12th. In a pack-saddle provided with a rigid frame, and a flexible covering for the sides thereof, the edge pieces or stiles of said frame projected downward for grasping in the hands to support said saddle and relieve the shoulders, substantially as shown and described.

No. 59,415. Electric Fire Alarm System.

(Système d'avertisseur d'incendie électrique.)



Charles Darwin Tisdale, Boston, Massachusetts, and John Duncklee Gould, Brooklyn, New York, both in the U.S.A., 24th March, 1898; 6 years. (Filed 2nd August, 1897.)

Claim.—1st. In an electric fire-alarm, the combination of two wires or conductors, one of which is fusible at a low temperature, an insulating material surrounding said fusible wire, the other wire wound on said insulating material, an outer covering of insulating material surrounding the whole, both of said insulating-coverings being readily destroyed by heat, one of said wires being connected with one pole of an electric battery, and the other wire connected to the other pole thereof and a bell or other sounding device located in the battery-circuit, substantially as described. 2nd. In an electric fire-alarm, the combination of two wires or conductors, one of which is fusible at a low temperature, an insulating material surrounding said fusible wire, the other wire being arranged in contact with said insulating material, an outer covering of insulating material surrounding the whole, both of said insulating-coverings being readily destroyed by heat, one of said wires being connected with one pole of an electric battery and the other wire connected to the other pole thereof, and a bell or other sounding device located in the battery circuit, substantially as described. 3rd. A compound conductor for electric fire-alarms consisting of a core-wire of metal fusible at a low temperature, an insulating material covering said wire, a second wire wound around said insulating material and an outer covering of insulating material surrounding the whole, said insulating-coverings being readily destroyed by heat, substantially as described.

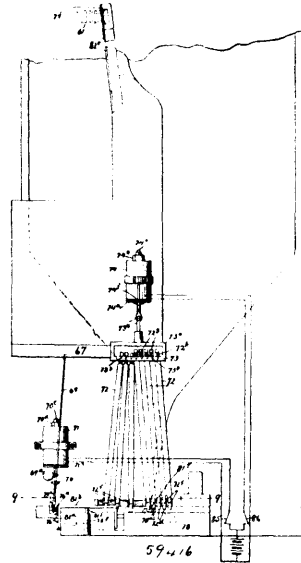
No. 59,416. Justifying Mechanism.

(Mécanisme de justification.)

The Electric Compositor Company, Wheeling, West Virginia, assignee of Benjamin F. Bellows, Cleveland, Ohio, all in the U.S.A., 25th March, 1898; 6 years. (Filed 8th February, 1898.)

Claim.—1st. The combination of a plurality of spacer magazines containing spacers of different thicknesses, independent escapement mechanisms for severally releasing the said spacers, assembling tubes adapted to receive the released spacers, and mechanism for severally introducing the discharge end of said tubes into the assembling line of matrices, and mechanism for simultaneously operating suitable escapement mechanisms, substantially as and for the purpose specified. 2nd. The combination of spacer magazines containing channels, the flat funnel-shaped assembling tubes 72 movably suspended below said magazines, the supplemental tubes 72' loosely mounted on the lower ends of said tubes 72, the assembling trough, and mechanism for releasing said tubes 72 singly and permitting the supplemental tubes to enter the assembling trough, substantially as and for the purpose specified. 3rd. The combination of the spacer magazines, containing channels, the flat funnel-

shaped assembling tubes 72 movably suspended below said channels, the supplemental tubes 72', the bar 79 for moving said tubes to the

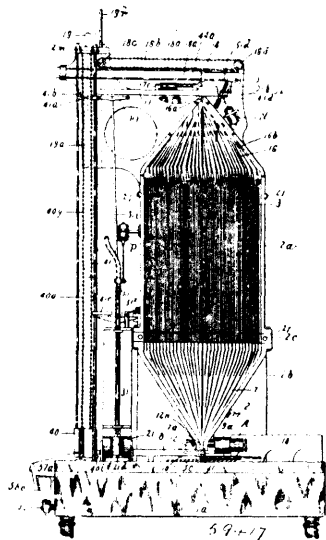


right, the pawl 78^a, the bar 73 for lifting the front ends of said tubes, the assembling trough, and escapement mechanism for releasing said tubes singly, substantially as and for the purpose specified. 4th. The combination of the spacer magazines containing channels, flat funnel-shaped assembling tubes 72, suspended at their rear upper ends by loose pivots, and guided at their upper ends where-by the contracted lower ends of said tubes may move both forward and backward and to right and left, substantially as and for the purpose specified. 5th. The combination of the spacer magazines containing channels, flat funnel-shaped assembling tubes suspended loosely at their rear upper ends beneath said channels and guided at their front upper ends, mechanism for temporarily preventing the movement of said tubes, and escapement mechanism for releasing said tubes singly, substantially as and for the purpose specified. 6th. The combination of the flat funnel-shaped assembling tubes, and the supplemental tubes open on their rear sides connected to the lower ends of said assembling tubes, substantially as and for the purpose specified. 7th. The combination of the slide 75, having ratchet-teeth 75^b, the slide 76, an escapement pallet-lever 80 pivoted to slide 76 for engagement with the ratchet teeth, a space key for operating said pallet-lever and pawl, and springs for retracting said slides, and means for preventing the concurrent backward movement of slide 75, substantially as and for the purpose specified. 8th. The combination of the slide 75 having ratchet-teeth 75^b, the slide 76 having a tooth 76^c, an escapement pallet-lever 80 pivoted to slide 76 for engagement with the ratchet teeth, a pawl 78^a pivoted to a fixed support for engagement with said tooth 76^c, a space key for operating said pallet-lever and pawl, and springs for retracting said slides, a detent adapted to be moved by and in front of an assembling matrix line, and arms on said detent and slide 75 which engage with each other, substantially as and for the purpose specified. 9th. The combination of a plurality of spacer magazines adapted to contain spacers of different thicknesses, and a gravity sorter arranged above and in communication with the mouths of said magazines, for separating the different sized spacers and discharging them into their respective magazines, substantially as and for the purpose specified. 10th. The combination of a plurality of spacer magazines adapted to contain spacers of different thicknesses, and arranged one behind another with their mouths in the same vertical plane, with a gravity sorter having a single inlet mouth or opening, and a plurality of discharge openings of different sizes, which openings are respectively connected with the several magazine mouths, substantially as and for the purpose specified. 11th. The combination of an inclined sorter plate, having in its lower face a plurality of grooves of different depth which begin at a common point at the mouth of the sorter and diverge therefrom downward, said grooves being all inclined in the same direction to the vertical, but at different progressively greater angles, the shallowest groove being least inclined, and a smooth plate secured across the grooved face of said sorter plate, with a plurality of magazines having their mouths beneath the lower ends of said grooves, substantially as and for the purpose specified. 12th. In a device for sorting spacers of different thicknesses, a plate having in one face grooves of different depth, which grooves have their origin at a common point, and diverge therefrom until they are entirely separated, substantially as and for the purpose specified. 13th. The combination of a plurality of magazines having their mouths arranged in a row, with a sorter consisting of a plate having in one side inclined grooves of different depth which discharge into

the mouths of the magazines, which grooves converge and are merged together at their upper ends, substantially as and for the purpose specified. 14th. The combination of a sorter having a mouth at its upper end and inclined grooves of different depth, arranged progressively as to depth one behind another, which grooves begin at the mouth of the sorter and diverge from said point downward, the shallowest grooves being the least inclined, with magazines, the mouths of which are arranged beneath the lower ends of said sorter grooves, substantially as and for the purpose specified. 15th. The combination of a plurality of magazines arranged one behind another, each divided into vertical channels, the channels in the several magazines being arranged in rows, with assembling tubes having wide mouths arranged severally beneath the rows of channels, substantially as and for the purpose specified. 16th. The combination of a plurality of spacer channels, their escapement mechanism and spacers, with independent devices for actuating said escapements, and mechanism for operating any desired combination of said devices, substantially as and for the purpose specified. 17th. The combination of a plurality of spacer channels, their escapement mechanisms, and spacers, with independent escapement operating devices, a plurality of different combination rods adapted to operate any desired combination of said escapement operating device, substantially as and for the purposes specified. 18th. The combination of a plurality of spacer channels, escapement mechanism for each channel, an equal number of slotted rocker plates, and mechanism connecting said rocker plates and escapement mechanisms, with movable combination rods which pass through slots in all of the plates and are arranged in rows coincident with said slots, all of the rods having laterally projecting fingers for engagement with said plates, the fingers on all of the rods in any row being the same as to number but different as to arrangement, the number of fingers on different rods being different, substantially as and for the purpose specified. 19th. The combination of a plurality of spacer channels, and independent escapement for each channel, an equal number of rocker plates, and connecting mechanisms, and a plurality of movable combination rods, each having a different combination of fingers for engagement with said rockers, substantially as and for the purpose specified. 20th. The combination of a plurality of spacer channels, escapements for said channels, a plurality of movable combination rods, each having a different combination of laterally projecting fingers, and independent escapement operating mechanism adapted to be actuated by said fingers, substantially as and for the purpose specified. 21st. The combination of a plurality of spacer channels, escapements for said channels, an equal number of escapement operating mechanisms, and a plurality of movable combination rods having laterally projecting fingers which engage with said escapement operating mechanisms, said rods being arranged in rows, the rods in each row having the same number of fingers, which fingers are differently arranged upon different rods, substantially as and for the purpose specified. 22nd. The combination of a plurality of spacer channels, independent escapement mechanism for said channels, and a plurality of movable combination rods having different combinations of fingers for operating said escapement mechanism, substantially as and for the purpose specified. 23rd. The combination of a plurality of spacer magazines, each of which contains a plurality of channels, which magazines are grouped one behind another with their channels arranged in rows, each row containing a plurality of channels, but only one in any one magazine, substantially as and for the purpose specified. 24th. The combination of spacer magazines grouped one behind another, each magazine divided into channels which are arranged in rows including channels in different magazines, and independent escapement for each channel and assembling tubes supported severally beneath said rows of channels, substantially as specified. 25th. The combination of a spacer magazine having a single mouth, ribs which divide the magazine into channels, and a switch adapted to be operated by the entry of a spacer into the channel whereby the next spacer which enters the mouth of the magazine must enter a different channel, substantially as and for the purpose specified. 26th. The combination of a spacer magazine having a contracted mouth, ribs which divide the magazine into spacer channels, and an automatic switch lever having its upper end normally in the path of a spacer falling through said mouth, and its lower end extended diagonally across a spacer channel, substantially as and for the purpose specified. 27th. The combination of a spacer magazine having contracted mouth, one approximately vertical wall, and one wall which diverges therefrom at its upper end, and ribs which divide the lower part of the magazine into a plurality of spacer channels, with automatic switch levers pivoted in said magazines having long upper arms, which fall by gravity into contact with said vertical wall, and short arms which extend diagonally across said channels, substantially as specified. 28th. The combination of a spacer magazine divided into a plurality of channels, an equal number of horizontally movable slides which lie in grooves in the wall of said magazine, each slide having a finger which projects into one of the channels, substantially as and for the purpose specified. 29th. The combination of a plurality of spacer magazines, each of which is divided into vertical channels, an independent escapement slide for each channel, corresponding bell crank levers for operating said escapement slides, corresponding rocker plates for operating said bell crank levers, which rocker plates are arranged one above another and are provided with slots extending towards their pivots, with a plurality of

movable combination rods extending through said slots and having different combinations of fingers adapted to engage with said rocker plates, substantially as and for the purpose specified. 30th. The combination of a series of rocker plates arranged one above another, having a plurality of slots arranged in common vertical planes at right angles to their pivots, and escapement mechanisms operated by said several rocker plates, with a plurality of combination rods which extend through said slots, and are arranged in rows coincident with said slots, rods having laterally projecting fingers adapted to engage with and operate said rocker plates, all of the rods in the first row having the same number of fingers but differently arranged, and each succeeding row having one more finger than the one next in front of it, substantially as and for the purpose specified. 31st. The combination of a plurality of combination rods having laterally projecting fingers, which rods are arranged in rows, each rod in any row having the characteristic number of fingers of said row, which fingers on the different rods are differently arranged, in combination with the push rod adapted to be moved from one row to another and along any of the rows and mechanism for moving said push rod up to operate the combination rod above it, substantially as and for the purpose specified. 32nd. The combination of the spacer channels and independent escapement mechanisms for said channels and the combination rods 66 arranged substantially as described, with a push rod mounted on a universal joint on a vertically movable arm, two slides 75, 76, and two plates 75a 76a secured respectively to said slides and adapted to engage with and operate the lower end of said push rod, the spacer assembling tubes which are adapted to be introduced into a line of type or matrices as it is being assembled, mechanism for advancing the slide 75 alone, whenever a spacer tube is added to the line, a distance equal to the width of such tube, and mechanism for advancing both slides when matrices or type are added to the line a distance equal to such addition, substantially as and for the purpose specified. 33rd. A spacer having parallel sides, and having in its upper end a dove-tailed notch, and, in its lower end a notch which is not dove-tailed, substantially as and for the purpose specified. 34th. The combination of a plurality of spacer assembling tubes suspended from their upper ends and adapted to swing forward and backward and to right and left, a pawl engaging with the left tube thereby preventing them from swinging to the left, and a movable arm engaging behind the left tube, thereby preventing its rearward movement, a space key for moving this arm, and an assembling trough having a slot in its front wall behind the left trough, substantially as and for the purpose specified. 35th. A spacer assembling tube having a contracted lower end and an open wide upper end, and the ear 72c, which is vertically slotted, and the ear 72d, both ears being connected with the front side of the lower end of said tube, combined with a supplemental tube having a rod 72k, which passes through the slotted ear 72c and is loosely attached to the ear 72d, substantially as and for the purpose specified.

No. 59,417. Machine for Making Type Bars.
(Machine pour faire les barres de caractères.)



The Electric Compositor Company, Wheeling, West Virginia, assignee of Benjamin F. Bellows, Cleveland, Ohio, all in the U.S.A., 25th March, 1898; 6 years. (Filed 31st January, 1898.)

Claim. - 1st. The combination of a plurality of matrix magazines, their independent escapements, vertically movable rods adapted to operate said escapements, and keys to which said rods are connected,

with a transversely movable bar through which said rods pass loosely, a plate secured to said bar having an inclined slot, a lever pivoted on a fixed pivot, a pin secured to said lever entering said inclined slot, and mechanism for operating said lever, substantially as and for the purpose specified. 2nd. The combination of a plurality of matrix magazines, their independent escapements, vertically movable rods adapted to operate said escapements and keys to which said rods are connected, with a transversely movable bar through which said rods pass loosely, two lugs on said bar having in them oppositely inclined slots, two levers pivoted on fixed pivots and having pins which enter said slots respectively, two keys, and connections between said keys and said levers respectively, substantially as and for the purpose specified. 3rd. The combination of independent matrix magazines, their escapements, vertically movable rods adapted to operate said escapements and keys with which to operate said rods, with a transversely movable bar through which said rods pass loosely, an inclined surface on the under side of said bar, a lever pivoted on a fixed pivot and having a part adapted to engage with said inclined surface, a key, and intermediate mechanism connecting said key and lever, substantially as and for the purpose specified. 4th. In a matrix assembling machine, an upright frame member consisting of the upper part 2^a, having vertical magazine grooves in its front side, the lower part 2^b having a like number of assembling grooves which converge from their top downward and are merged together to form a single channel, and a part 2^c secured to and between the other parts and having *a* in its front side vertical grooves which connect the grooves in the parts 2 and 2^b, *b* in its rear side a like number of vertical grooves, and *c* in its upper and lower sides, horizontal grooves which connect the grooves in the front side with the grooves in the rear side of said parts, substantially as and for the purpose specified. 5th. The combination of an assembling trough, a spout above said trough through which all of the matrices fall into said trough, a plunger movable in said trough, a lever adapted to move said plunger, an insulated contact piece, a flexible spring extended beneath said spout, an electro-magnet connected in a circuit adapted to be closed by the contact of said spring and contact piece, a longitudinally movable rod adapted to operate the plunger lever and to be operated by the electro-magnet, and a spring for moving the plunger lever in the opposite direction, substantially as and for the purpose specified. 6th. The combination of the assembling trough having a longitudinal slot in its bottom, a pivoted detent arm adapted to oscillate on its axis and to move in a path parallel to the trough, having its end adapted to enter said slot in the trough, and a spring for retracting said detent arm, substantially as and for the purpose specified. 7th. The combination of the assembling trough having a longitudinal slot in its bottom, a detent rod movable longitudinally and axially, an arm secured thereto having its end upturned and adapted to enter said slot in the trough, and a spring for returning said rod to its original position, substantially as and for the purpose specified. 8th. The combination of the assembling trough having a slot in its bottom, a detent rod movable longitudinally and axially, a detent arm secured thereto, adapted to enter the trough through said slot, a spring pawl pivoted to the detent arm and adapted to engage with the bottom of said trough, mechanism for turning said rod upon its axis to withdraw the detent arm from said trough, a spring for returning said rod, and a bevelled rib on the trough for disengaging the pawl from the trough, substantially as and for the purpose specified. 9th. The combination of a claw rod mounted in suitable bearings, and adapted to be turned upon its axis and to be moved longitudinally in said bearings, a coil spring adapted to move said rod both axially and longitudinally to return it to its normal position, and a claw secured to said rod, substantially as and for the purpose specified. 10th. The combination of the assembling trough, a claw rod mounted in suitable bearings and adapted to be turned and to be moved longitudinally therein, means for returning said rod to its normal position, a claw secured to said rod adapted to enter said trough, a spring pawl pivoted to said claw adapted to engage with said trough, and thereby prevent the turning of the claw rod to withdraw the claw from the trough, and means for releasing said pawl, substantially as and for the purpose specified. 11th. The combination of the assembling trough, a claw rod mounted in bearings in which it may oscillate and move longitudinally, a spring for returning the rod to its normal position, a spring pawl pivoted to said claw adapted to engage with the trough to prevent the turning of the rod to withdraw the claw from the trough, and a drop pawl pivoted to said trough adapted to engage with the claw to prevent its backward movement, substantially as and for the purpose specified. 12th. The combination of the assembling trough, a claw rod mounted in a fixed sleeve in which it is adapted to move longitudinally and to turn upon its axis, a coil spring surrounding said rod in said sleeve and secured at its end to said rod and sleeve respectively, and a claw secured to said rod adapted to enter said trough, substantially as and for the purpose specified. 13th. The combination of the assembling trough, a claw rod mounted in bearings in which it may oscillate and move longitudinally, means for returning said rod to its normal position, a claw secured to said rod, a spring pawl adapted to engage with the trough, a lever pivoted to said trough and adapted to release said pawl and means for operating said lever, substantially as and for the purpose specified. 14th. The combination of a longitudinally movable push rod adapted to be turned in its bearings and to be moved longitudinally therein, an arm secured thereto, with a loosely pivoted switch 14^a

having a pointed end which hangs below said switch box, and a spring for retracting said push rod, substantially as and for the purpose specified. 15th. The combination of a longitudinally movable push rod and an arm secured thereto, with an electric switch, and switch operating mechanism adapted to be operated by said arm, substantially as and for the purpose specified. 16th. The combination of a longitudinally movable push rod, and an arm secured thereto, with an electric switch, two arms projecting below said switch box and adapted to be engaged by said arm on the push rod, and mechanism whereby the said engagement with one arm operates the switch in one direction, and with the other arm operates said switch in the opposite direction, substantially as and for the purpose specified. 17th. The combination of the assembling trough, a push rod adapted to move both longitudinally and axially, a push secured thereto, and a rack on said rod, with a revolving shaft, a pinion loosely mounted thereon engaging said rack, a clutching device for connecting said shaft and pinion, and mechanism for operating said clutch, substantially as and for the purpose specified. 18th. The combination of a hollow shaft, a pinion loosely mounted thereon, a collar adapted to interlock with said pinion, a pin secured to said collar passing through a slot in said shaft, two movable rods in said shaft engaging with opposite sides of said pin, a spring adapted to move one rod, and means for moving the other rod, substantially as and for the purpose specified. 19th. The combination of a hollow shaft, a pinion loosely mounted thereon, a collar adapted to interlock with said pinion, a pin secured to said collar passing through a slot in said shaft, two movable rods in said shaft engaging with opposite sides of said pin, a spring adapted to move one rod, and an electro-magnet adapted to move the other rod, substantially as and for the purpose specified. 20th. The combination of the longitudinally movable push rod, a rack connected with said push rod, with a revolving shaft, an independently movable pinion engaging with said rack, a clutching device for connecting said pinion and shaft, an electro-magnet and clutching device whereby the latter is operated by said electro-magnet, substantially as and for the purpose specified. 21st. The combination of an automatically closing mould door, a shoulder with which said door engages and by which it is held open, a spring for causing said engagement, the movable push, a lever mounted in a slot in the end of said push adapted to engage with said door and release it, substantially as and for the purpose specified. 22nd. The combination of the longitudinally movable push rod adapted to be turned in its bearings, a push secured to said rod, an arm also secured to said rod, mechanism for operating said push rod, a clutch for setting said mechanism in operation, an electro-magnet adapted to operate said clutch, and an electric switch adapted to be engaged by said arm on the push rod, whereby the said electric switch is operated, substantially as and for the purpose specified. 23rd. The combination of the assembling trough, a detent rod and a claw both adapted to be projected into the same, and to be moved longitudinally therein, mechanism by which they are held in said trough, a push lying normally out of said trough but adapted to be moved into the same, and mechanism whereby the entrance of the push into said trough causes the withdrawal of the detent and claw therefrom, substantially as and for the purpose specified. 24th. The combination of the assembling trough, a detent susceptible of longitudinal and oscillatory movement, a detent secured to said rod, a push rod susceptible of longitudinal and oscillatory movement, an arm 10^a secured to said detent rod, and arm 12^a in operative connection with the push rod and adapted to engage with the arm on the detent rod, substantially as and for the purpose specified. 25th. The combination of a detent rod susceptible of longitudinal and oscillatory movement, and an arm secured thereto, with a push rod susceptible of longitudinal and oscillatory movement, a sleeve 12^b which surrounds the detent rod and is connected thereto by a tongue and groove, an arm 12^c secured to said sleeve, and adapted to engage with said arm on the detent rod, substantially as and for the purpose specified. 26th. In a machine for casting type bars, a mould having a recess adapted to receive a matrix line, and a type slot extending from without inward to said recess, substantially as and for the purpose specified. 27th. In a machine for casting type bars, the combination of a mould having a recess adapted to receive a matrix line, and a type slot extending from without inward to said recess, with a matrix clamp contained in said recess, substantially as and for the purpose specified. 28th. The combination of a cylindrical mould having a longitudinal recess extending from end to end adapted to contain a matrix line, a type slot passing from without inward to said recess and extending from one end to the other of the mould, with doors adapted to close the end of said type slot and recess, substantially as and for the purpose specified. 29th. In a machine for casting type bars, the combination of a melting pot, a cylindrical mould having a longitudinal recess adapted to receive a matrix line, and a type slot extending from without inward to said recess, and a matrix clamp contained in said recess, with mechanisms for oscillating said mould upon its axis, substantially as and for the purpose specified. 30th. The combination of a cylindrical mould having a longitudinal recess adapted to receive a matrix line, and a longitudinal slot extending from without inward to said recess, said mould also having a transverse slot entering said recess, with a matrix clamp contained in said recess, a friction wheel mounted on said matrix clamp, a fixed bar having a cam-shaped end adapted to enter said recess and engage with said friction wheel, and mechanism for oscillating said mould, substantially as and for the purpose specified. 31st. The combination of a cylindrical

mould having a longitudinal recess adapted to receive a matrix line, and a longitudinal slot extending from without inward to said recess, with a matrix clamp contained in said recess having a shelf upon which said matrices rest, a lid pivoted to said matrix clamp, and springs interposed between said lid and matrix clamp, springs interposed between the matrix clamp and that side of the mould in which the type slot is formed, mechanism for oscillating said mould, and a device for moving said matrix clamp, substantially as and for the purpose specified. 32nd. The combination of a cylindrical mould having a longitudinal recess adapted to receive a matrix line and a type slot extending from without inward to said recess, and a matrix clamp contained in said mould, said mould having peripheral gear teeth, with a sliding rack adapted to engage with said gear teeth, substantially as and for the purpose specified. 33rd. The combination of a fixed mould jaw and a pivoted mould jaw having an incomplete cylindrical recess between them, a cylindrical mould lying in said recess and having a longitudinal recess adapted to contain a line of matrices and having also a longitudinal type slot extending from said recess outward, a matrix clamp contained in said mould recess, mechanisms for oscillating said mould and moving the matrix clamp, and the nozzle of a melting pot resting upon the mould, substantially as and for the purpose specified. 34th. The combination of a cylindrical mould having a recess adapted to receive a matrix line, and a longitudinal slot extending from without inward to said recess, and external gear teeth, a matrix clamp contained in said recess, with a fixed mould jaw and pivoted mould jaw having an incomplete cylindrical recess between them in which said mould is mounted, a friction roller in the end of said pivoted mould jaw, a slide upon which said roller rests, said slide having a bevelled surface which engages with said roller, and a rack operated by said slide engaging with the teeth on the mould, substantially as and for the purpose specified. 35th. The combination with the cylindrical mould having peripheral gear teeth, a sliding rack engaging with said gear teeth, a reciprocating slide for moving said rack, and mechanism permitting the independent movement of said slide during the first and last parts of its separate excursions, substantially as and for the purpose specified. 36th. The combination with the cylindrical mould having peripheral gear teeth, a slide 24 having shoulders 24', 24'', a rack which lies and is movable between said shoulders, a finger adapted to enter between said rack and one of said shoulders, and means for automatically moving said finger into and withdrawing it from said position, substantially as and for the purpose specified. 37th. The combination of a cylindrical mould, having a recess adapted to receive a matrix line, and a type slot extending from without inward to said recess, and having also external gear teeth, a movable slide having a recess in its top side, a rack shorter than the said recess lying between a bar movable in a guide groove oblique to the path of the rack, having a finger adapted to be projected between the rack and a shoulder on the slide, substantially as and for the purpose specified. 38th. The combination of an oscillating cylindrical mould, having gear teeth on its outer periphery, a slide carrying a rack adapted to engage with said gear teeth, a crank shaft having a crank pin which engages in a groove in said slide, and mechanism for operating said crank shaft, substantially as and for the purpose specified. 39th. A slide having a pin projecting from its under side, and having also a recess in its top side, combined with a rack, shorter than said recess, which is seated in the recess and is adapted to move between the ends of said recess, mechanism acting on said pin to move the slide, and an oscillating mould having teeth which are engaged by said rack, substantially as and for the purpose specified. 40th. The combination of an oscillating cylindrical mould containing a type slot, a rotating shaft, a rotatable shaft, and clutching device adapted to connect said two shafts, an electro-magnet adapted to operate said clutching device, and suitable mechanism intermediate of said rotatable shaft and mould, whereby when the former is rotated the latter will likewise be rotated, substantially as and for the purpose specified. 41st. The combination of a cylindrical mould having a longitudinal recess adapted to receive a matrix line extending from one end to the other of said mould, and a type slot extending from without inward to said recess, said mould having in its ends grooves adapted to receive the mould doors, with the mould doors movable in said grooves, having projecting pins, door-operating levers, having hook shaped ends adapted to engage with said pins, and mechanism for operating said door-opening levers, substantially as and for the purpose specified. 42nd. The combination of the sliding mould doors and spring operated levers for operating them, with a pivoted block 35, pawls pivoted to said block and adapted to engage with said levers, and mechanism for operating said block, substantially as and for the purpose specified. 43rd. The combination of a fixed and movable mould clamping jaw having an incomplete cylindrical recess between them, a cylindrical mould mounted in said recess, having end grooves adapted to receive sliding doors, one of said mould jaws also having similar grooves, with sliding mould doors having projecting pins, pivoted door-operating levers having hooks which are adapted to engage with said pins, springs for moving said levers in one direction, a pivoted block, a spring for moving the same in one direction, pawl levers pivoted to said block and adapted to engage with said door-opening levers, and the mechanism adapted to oscillate said mould and to move said block against its spring, substantially as and for the purpose specified. 44th. The combination of an oscillating cylindrical mould, having a type slot extending from one

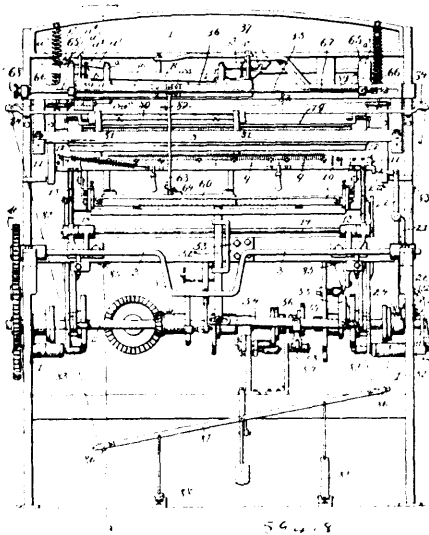
end to the other, a fixed and movable jaw between which said mould is journaled, two shearing knives secured to the fixed mould jaw in position to trim the sides of the type bar when the same is forced from the type slot into the mould, substantially as and for the purpose specified. 45th. The combination with the mould, a door for one end of the mould, a door-operating lever and a spring arm pivoted thereto with a vertically movable elevator, substantially as and for the purpose specified. 46th. The combination of an elevator adapted to receive a matrix line, mechanism for raising said elevator, an electro-magnet adapted to set said mechanism in operation, an electrical switch for closing the circuit of said magnet, and mechanism whereby the switch is operated when the matrices enter the elevator, substantially as and for the purpose specified. 47th. The combination of an elevator adapted to receive a matrix line, mechanism for raising said elevator, an electro-magnet adapted to set said mechanism in operation, and an electrical switch for completing the circuit of said magnet, which switch enters the elevator so as to be engaged and operated by the matrices entering said elevator, substantially as and for the purpose specified. 48th. The combination of an elevator, and mechanism for raising it, a clutching device for connecting said mechanism with the driven shaft, an electro-magnet for operating said clutching device, an electric switch for completing the circuit of said magnet, and mechanism for automatically operating said switch to break the electric circuit when the elevator has reached its upper position, substantially as and for the purpose specified. 49th. The combination of an elevator, and mechanism for raising it, a clutching device for connecting said mechanism with a driven shaft, an electro-magnet for operating said clutching device, an electric switch for completing the circuit of said magnet, a spring actuated shift rod, an arm thereon adapted to operate said switch, and mechanism preventing the movement of said shift rod by its spring and adapted to be engaged by the elevator when the same has reached its upper position, whereby the shift rod is permitted to move said switch and break the electric circuit, substantially as and for the purpose specified. 50th. The combination of a vertically movable elevator and mechanism for moving the same, an electro-magnet adapted to connect said mechanism with the driving mechanism, an electrical switch for completing the circuit of said electro-magnet adapted to enter the elevator and be moved to complete said circuit by the matrices in entering said elevator, with a shift rod adapted to move the switch in the opposite direction, a spring for moving said shift rod, a pawl for preventing the movement of said shift rod by its spring, which is adapted to be engaged and made inoperative by the elevator, substantially as and for the purpose specified. 51st. The combination of the elevator, mechanism for raising it, an electro-magnet adapted to set said mechanism in operation, and an electric switch adapted to complete and break the electric circuit, with a spring operated switch rod, an arm secured thereto for moving said switch to break the circuit, an arm 41a, a pawl 41b pivoted to said arm, and adapted to engage with a fixed part of the machine and to be lifted out of engagement therewith by the elevator, said elevator having a notch with which said pawl is adapted to engage, substantially as and for the purpose specified. 52nd. The combination of a mould having a type slot, a melting pot having a nozzle adapted to discharge into said type slot, a pump and a lever for operating said pump, with a weight adapted to fall upon the said lever and by percussion to inject molten metal into the mould, substantially as and for the purpose specified. 53rd. The combination of a mould having a type slot, a melting pot having a nozzle adapted to discharge into said type slot, a pump piston adapted to force molten metal from the melting pot into the type slot, pump operating mechanism, and a weight adapted to fall upon said pump operating mechanism and by percussion to inject the molten metal into the type slot, substantially as and for the purpose specified. 54th. The combination of a mould having a type slot, a melting pot having a nozzle adapted to discharge into said type slot, a pump and pump piston, a lever, a connecting rod connecting said lever and pump piston, and the vertically movable elevator adapted to engage with said lever, substantially as and for the purpose specified. 55th. The combination of a mould having a type slot, a melting pot having a nozzle adapted to discharge into said type slot, a percussion lever for operating the pump piston, with the vertically movable elevator and mechanism for moving said percussion lever into and out of the path of the elevator, substantially as and for the purpose specified. 56th. The combination with the mould having a type slot, a melting pot having a nozzle adapted to discharge into said type slot, a pump for forcing said metal, a percussion lever adapted to operate the pump piston, a vertically movable elevator, an oscillating shift rod, an arm secured thereto having a pawl adapted to engage with said elevator and hold it up, a second arm engaging with said percussion lever, and mechanism for turning said shift rod, substantially as and for the purpose specified. 57th. In a melting pot in combination of a pump and a pump piston with a lever pivoted to the upper end of said piston, a bracket under which one end of said lever engages, combined with a vertically movable elevator and mechanism for moving said lever into and out of the path of said elevator, substantially as and for the purpose specified. 58th. The combination of a melting pot, a vertical mercury tube therein, a float in said tube, a lever lying above and resting upon said float and gas burners for heating said melting pot, a valve for controlling the supply of gas thereto, an electro-magnet for operating said valve and means whereby the movement of said lever makes

and breaks the circuit of said magnet, substantially as and for the purpose specified. 59th. The combination of a distributing trough, a transversely movable propeller, or movable-sprocket chain to which said propeller is connected, two sprocket wheels, a pinion rigidly connected with one of the sprocket wheels and a vertically movable rack engaging with said pinion, substantially as and for the purpose specified. 60th. The combination of a distributing trough, a propeller adapted to move a matrix line from the elevator into and along said trough, sprocket wheel and chain for moving said propeller, a vertically movable slide rack adapted to revolve one of said sprocket wheels, an elevator adapted to engage with said slide rack raise the same, and a tripping device for releasing the engagement of said elevator and slide rack, substantially as and for the purpose specified. 61st. The combination of a propeller adapted to propel a matrix line along the distributing trough, two sprocket wheels and a sprocket chain to which said propeller is secured, a vertically movable slide rack adapted to revolve one of said sprocket wheels, mechanism for raising said slide rack and releasing the same to the influence of gravity, a dash pot and an arm on said slide rack adapted to strike the dash pot piston, substantially as and for the purpose specified. 62nd. The combination with the transversely movable propeller, two sprocket wheels and a sprocket chain connected with said propeller and a pinion rigidly connected with one of the sprocket wheels, with the elevator, the vertically movable slide rack engaging with said pinion, a trip lever on said slide rack adapted to be engaged by the elevator, a trigger piece on the slide rack engaging with the trip lever and a lug on the frame adapted to operate said trigger piece, substantially as and for the purpose specified. 63rd. The combination of the transversely movable propeller, two sprocket wheels, a sprocket chain to which the propeller is attached, a pinion connected with one sprocket wheel, a vertically movable slide rack engaging with said pinion, mechanism for lifting said slide rack and releasing it to the action of gravity, with a dash pot, an arm pivoted to said slide rack and a latch for holding said arm in place which is adapted to be lifted by engaging with a fixed part of the machine, substantially as and for the purpose specified. 64th. The combination of diverging distributing channels, dividing partitions by which the number of these channels is increased from the top downward, switches, whereby any channel may be placed in communication with either of its branches formed by said partitions, the said switches being connected in groups, whereby all of the switches in any group will be simultaneously moved, electro-magnets and intermediate mechanism respectively associated with the several groups of switches and adapted to operate the same, substantially as and for the purpose specified. 65th. The combination of diverging distributing channels, dividing partitions by which the number of said channels is increased from the top downward, switches arranged and connected in rows and pivoted to the upper ends of said partitions and mechanism for severally operating said rows of switches, substantially as and for the purpose specified. 66th. The combination of diverging distributing channels, dividing partitions by which the number of said channels is increased from the top downward, pivoted switches arranged and connected in rows in said channels, electro-magnets adapted to severally operate the rows of switches, with a distributing trough having an opening through which communication is had with the distributing channels, a series of pins connected with the several electric circuits, matrices adapted to engage with said pins and thereby complete said electric circuits, a branch wire connected in the electric circuit between the magnet and said pins, and mechanism intermediate of said last named wires and the armatures of the several magnets, whereby the movement of either of said armatures completes the electrical circuit of which the corresponding wire is a part, substantially as and for the purpose specified. 68th. The combination of diverging distributing channels, dividing partitions by which the number of said channels is increased from the top downward, pivoted switches arranged and connected in rows in said channel, electro-magnets adapted to severally operate the rows of switches, with a distributing trough having an opening through which communication is had with said distributing channels, a series of pins connected in the several electric circuits, matrices adapted to engage with said pins and thereby complete said electric circuits, insulated springs, wires severally connected in the electric circuit between the pins and said magnets, which wires are severally connected with said springs, and rods connected with the armatures of said magnets adapted to severally engage with said springs when said armatures are attracted, substantially as and for the purpose specified. 69th. The combination of diverging distributing channels, dividing partitions by which the number of said channels is increased from the top downward, pivoted switches arranged and connected in rows in said channels, electro-magnets adapted to severally operate the rows of switches, with a distributing trough having an opening through which communication is had with said distributing channels, a series of pins connected in the several electric circuits, matrices adapted to engage with said pins and

thereby complete said electric circuits, a series of insulated springs arranged adjacent to said magnets, mechanism connected with the armatures of said magnets adapted to severally engage with said springs, wires connected in the electric circuit between the magnets and pins, which wires are severally connected with said springs, a movable switch-back, insulated fingers secured thereto and adapted to engage with said springs and means for operating said switch-back, whereby said springs are moved and the electric circuits thereby broken, substantially as and for the purpose specified. 70th. The combination of diverging distributing channels, rows of switches pivoted in said channels, electro-magnets adapted to operate severally the rows of switches, means for completing the circuits of said magnets, a switch-back adapted to break all of said circuits, an electro-magnet for operating said switch-back, and a governor adapted to close the circuit of said last named electro-magnet, substantially as and for the purpose specified. 71st. The combination of the distributing trough having an opening in its bottom, a distributing spout below said opening, a movable gate closing the opening in said trough, and mechanism for operating said gate, substantially as and for the purpose specified. 72nd. The combination of the distributing trough having an opening in its bottom, a distributing spout below said opening, and diverging distributing channels below and in communication with said spout, switches arranged and connected in rows and pivoted in said distributing channels, and electro-magnets for operating the several rows of switches, with a sliding gate keeper, mechanism for moving the same, a gate secured to said gate keeper, closing the opening in the distributing trough, a series of insulated pins secured to said gate keeper and connected severally in the circuits of said electro-magnets, and stop bars extending into said trough, substantially as and for the purpose specified. 73rd. The combination of diverging distributing channels, a row of switches pivoted in said channels, crank arms secured to all of the switch pivots, a bridge bar pivotally connected with all of the crank arms, a crank arm secured to one of said pivots, an electro-magnet, a link connecting the last named crank with the armature of said electro-magnet, and the means for completing and breaking the electric circuit, substantially as and for the purpose specified. 74th. The combination with the distributing trough having an opening in its bottom, a rock shaft, an arm secured to said rock shaft and adapted to enter said trough at one side of the opening in the bottom thereof, and mechanism for operating said rock shaft, substantially as and for the purpose specified. 75th. The combination with a distributing trough, diverging distributing channels below an opening in said trough, pivoted switches arranged and connected in rows in said channels, electro-magnets adapted to severally operate said rows of switches, a series of pins which project into said distributing trough and are severally connected in the circuit of said electro-magnets, with the movable pinch adapted to enter said distributing trough, an electro-magnet for operating the same, and mechanism whereby the operating of one of the switch magnets completes the circuit of the pinch magnet, substantially as and for the purpose specified. 76th. The combination of a distributing trough, diverging distributing channels below an opening in said trough, pivoted switches arranged and connected in rows, electro-magnets adapted to severally operate said rows of switches, a gate keeper movable in said trough, a series of insulated pins secured to said gate keeper, which pins are connected in the circuit of said electro-magnets, a pinch adapted to enter said trough, two electro-magnets adapted to operate said pinch, mechanism whereby the operation of any one of the switch magnets completes the circuit of one pinch magnet, and mechanism whereby the movement of the gate keeper completes the circuit of the other pinch magnets, substantially as and for the purpose specified. 77th. The combination of electro-magnets adapted to perform certain functions in the machine, a movable switch-back whereby all of the electric circuits are broken, and an electro-magnet for operating said switch-back, with the movable gate keeper, a governor operated thereby and adapted to close the circuit of the switch-back magnet, substantially as and for the purpose specified. 78th. The combination with the movable gate keeper, a pivoted ball track, a ball movable therein, intermediate mechanism between said pivoted ball track and gate keeper, a spring adapted to be engaged by said ball, an electro-magnet and its electric circuit in which said spring is connected, substantially as and for the purpose specified. 79th. The combination of the distributing trough having an opening in its bottom, a distributing spout, diverging distributing channels, partitions dividing said channels thereby increasing their number from the top downward, switches pivoted in said channels and arranged and connected in rows, electro-magnets for severally operating said row of switches, with a gate keeper movable in said trough, a gate secured thereto for closing the opening in the distributing trough, a series of insulated pins secured to said gate keeper and severally connected in the circuits of said electro-magnets, a toggle for moving said gate keeper, an electro-magnet for flexing said toggle, and mechanism whereby the attraction of the armature of any of the switch magnets completes the circuit of the gate keeper magnet, substantially as and for the purpose specified. 80th. The combination of the upright frame member having on its face distributing channels which converge from the lower ends upward and are finally merged together into one channel assembling channels which converge from their upper ends downward and are finally merged into one channel, and magazine channels which are intermediate of said assembling channels and distributing chan-

nels and are in communication with both, with switches pivoted in the distributing channels and escapements in the lower ends of the magazines, substantially as and for the purpose specified. 81st. A series of matrices each having one or more transverse holes, which holes are differently arranged on the different matrices, substantially as and for the purpose specified. 82nd. In a machine for forming type bars, a series of magazines containing matrices of various thicknesses, except that the corresponding parts of said matrices are cut away on the right side thereof to make these parts of uniform thickness, said matrices having, through the uniformly thick parts, one or more transverse holes which are differently arranged on the different matrices, substantially as and for the purpose specified. 83rd. The combination of the distributing trough, a propeller adapted to push the matrix line along said trough, mechanism for operating said propeller, a slide rack adapted to operate said mechanism, the elevator, and a trip lever for connecting said elevator and slide rack, substantially as and for the purpose specified.

No. 59,418. Knitting Machine. (Machine à tricoter.)

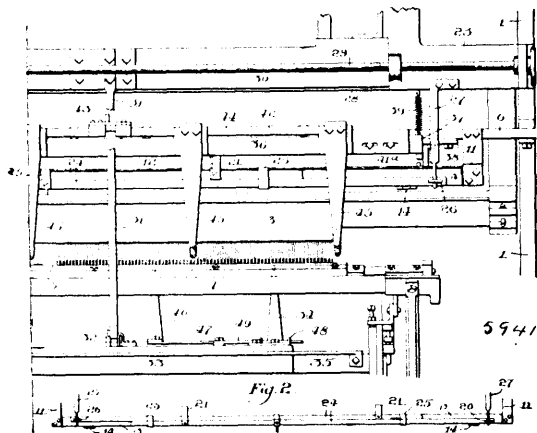


James Radford Kendrick, Assignee of Freeman Raven, both of Philadelphia, Pennsylvania, U.S.A., 25th March, 1898; 6 years. (Filed 27th January, 1898.)

Claim.—1st. In a knitting machine, the combination with the needles and their supporting parts, of the point-bearing bar, its supporting levers, and means for automatically reciprocating said bar longitudinally, substantially as described. 2nd. In a knitting machine, the combination with the needles and their supporting parts, of the point-bearing bar, its supporting levers, a rocking lever, means whereby it is connected with one end of the point-bearing bar, a cam acting upon said rocking lever, and means for actuating the cam, substantially as described. 3rd. In a knitting machine, the combination with the needles and their supporting parts, of the point-bearing bar, its supporting levers, a rocking lever, a latch thereon detachably connecting the lever with one end of the point-bearing bar, a cam acting upon said rocking lever, and means for actuating the cam, substantially as described. 4th. In a knitting machine, the combination with the needles and their supporting parts, of the point-bearing bar, its supporting levers, a rocking lever, means whereby it is connected with one end of the point-bearing bar, a cam acting upon said rocking lever, the shaft for said cam, the ratchet-wheel on said shaft, the pawl co-acting with said wheel, the lever supporting the pawl, and the cam on the main shaft co-acting with said lever, substantially as described. 5th. In a knitting machine, the combination with the needles and their supporting parts, of the point-bearing bar, its supporting levers, and means for automatically oscillating said levers, substantially as described. 6th. In a knitting machine, the combination with the needles and their supporting parts, of the point-bearing bar, its supporting levers, the main shaft, the cam thereon, and mechanism intermediate said cam and the levers whereby the latter are reciprocated, substantially as described. 7th. In a knitting machine, the combination with the needles and their supporting parts, of the point-bearing bar, its supporting levers, means for automatically reciprocating said bar longitudinally, and means for automatically oscillating the levers, substantially as described. 8th. In a knitting machine, the combination with the needles, their supporting parts, and the jack-frame, of transversely reciprocative heads connected with said frame, a vertically reciprocative bar fitted to said heads, means for vertically reciprocating said bar, a thread-carrier having a sliding connection with said bar, and

means for longitudinally reciprocating said carrier, substantially as described. 9th. In a knitting machine, the combination with the needles, their supporting parts and the jack-frame, of the forwardly projecting track-arms, the horizontally reciprocative heads thereon, means connecting said heads with the jack-frame, the vertically reciprocative bar fitted to said heads, means for operating said bar, a thread-carrier having a sliding connection with said bar, and means for longitudinally reciprocating said carrier, substantially as described. 10th. In a knitting machine, the combination with the needles, their supporting parts and the jack-frame of transversely reciprocative heads connected with said frame, a vertically reciprocative bar fitted to said heads, means for vertically reciprocating said bar, a thread-carrier having a sliding connection with said bar, the bar 35, the reciprocative thread carrier operating plate thereon, means for reciprocating said plate, means connecting said plate with the thread-carrier, and adjustable stops on the ends of said latter bar, substantially as described. 11th. In a knitting machine, the combination with the needles, their supporting parts, and the jack-frame, of transversely reciprocative heads connected with said frame, a vertically reciprocative bar fitted to said heads, means for vertically reciprocating said bar, a thread-carrier having a sliding connection with said bar, the bar 35, the reciprocative thread-carrier operating plate thereon, means for reciprocating said plate, means connecting said plate with the thread-carrier, longitudinally reciprocative stops, on the respective ends of the latter bar, and means for simultaneously advancing or retracting said stops step by step, substantially as described. 12th. In a knitting machine, the combination with the needles, their supporting parts and the jack-frame of transversely reciprocative heads connected with said frame, a vertically reciprocative bar fitted to said heads, a guide for said bar, a lever to which said bar is connected, a rocking lever, a link connecting said levers, a cam for actuating said rocking lever, the shaft for said cam, the thread-carrier having a sliding connection with said bar, and means for longitudinally reciprocating said carrier, substantially as described.

No. 59,419. Knitting Machine. (Machine à tricoter.)

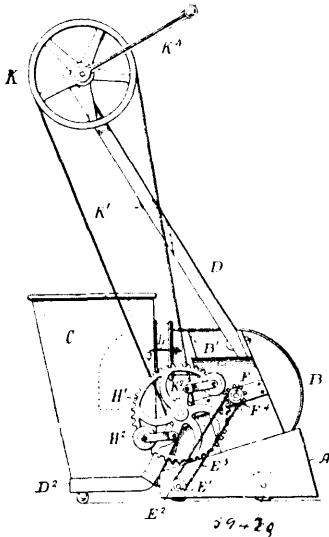


James Radford Kendrick, assignee of Freeman Raven, both of Philadelphia, Pennsylvania, U.S.A., 25th March, 1898; 6 years. (Filed 27th January, 1898.)

Claim.—1st. In a knitting machine, the combination, with the needles, the reciprocative weft-carrier, and its supporting and operating parts of the longitudinally-arranged stationary bar adjacent to the path traversed by said carrier, a bar hingedly connected with said stationary bar, means for temporarily closing said hinged bar and means for opening the same at predetermined intervals, substantially as described. 2nd. In a knitting machine, the combination, with the needles, the reciprocative weft-carrier, and its supporting and operating parts, of the longitudinally-arranged bar adjacent to the path traversed by said carrier, a bar hingedly connected with said former bar, means for temporarily closing said hinged bar, an adjustable projection thereon, and means on the carrier co-acting with said projection, to open the hinged bar at predetermined intervals, substantially as described. 3rd. In a knitting machine, the combination, with the needles, the reciprocative weft-carrier, and its supporting and operating parts, of the longitudinally-arranged bar adjacent to the path traversed by said carrier, a bar hingedly connected with said former bar, means for temporarily closing said hinged bar, a projection adjustable lengthwise of said latter bar, means for adjusting said projection, and means on the carrier co-acting with said projection to open the hinged bar at predetermined intervals, substantially as described. 4th. In a knitting machine, the combination, with the needles, the reciprocative weft-carrier, and its supporting and operating parts, of the longitudinally-arranged bar adjacent to the path traversed by said carrier, a bar hingedly connected with said former bar, means for temporarily closing said hinged bar, longitudinally movable strips on said latter bar provided

with projections or abutments to open the hinged bar at predetermined intervals, substantially as described. 5th. In a knitting machine the combination, with the needles, the jack-frame, and its jacks, of the weft clamping and releasing bars, means whereby the same are closed by the jack-frame in its forward movement, means for temporarily maintaining said bars closed, and means for opening said bars during the stroke of the carrier, substantially as described. 6th. In a knitting machine, the combination, with the needles, the reciprocative weft and thread carriers, and means for varying the strokes of the thread-carrier, of the weft clamping and releasing bars, one of the members thereof being fixed and the other movable, means for temporarily closing the movable bar, adjustable projections or abutments, connections between said devices and the said means for varying the strokes of the thread carrier, and means on the weft-carrier co-acting with said projections or abutments to open the movable bar at predetermined intervals, substantially as described. 7th. In a knitting machine, the combination, with the needles, the jacks, the points, and the thread carrier, of the supplemental weft-carrier, the movable supporting bar therefor and means for raising and lowering said bar, together with the supplemental thread-guide, and means for attaching it to the thread-carrier, substantially as described. 8th. The combination with the thread-carrier, of a supplemental thread-guide mounted thereon, and provided with a rack bar, and a dog on said carrier adapted to engage the teeth in said bar and thereby hold the supplemental thread-guide in positions of adjustment, substantially as described. 9th. In a knitting machine, the combination, with the needles, the jacks, and the supplemental weft and thread-carriers, of the point-bearing bar, and the pivoted arms thereon, substantially as described.

No. 59,420. Machine for Cleaning Carpets.
(*Machine à nettoyer les tapis.*)

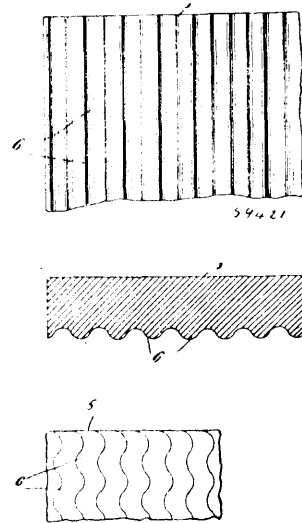


Albert F. Gue and Patrick J. Bonner, both of Boston, Massachusetts, U.S.A., 25th March, 1898; 6 years. (Filed 19th February, 1898.)

Claim.—1st. In a carpet-cleaner, the combination with the casing, the carpet-beating device, and the air-exhaust apparatus, of a water receptacle having the air-exhaust delivered upon the surface of the water therein, and a moistened screen covering the mouth of said receptacle, whereby the heavier particles of dirt removed from a carpet are held by said water free from further action of the part of the discharging air and the finer particles of dust are caught by the said screen, which is kept constantly moistened by the spray arising from said water as disturbed by said air blast. 2nd. In a carpet-cleaner, the combination with the casing, the carpet-beating device, and the air-exhaust apparatus, of a water receptacle having the air-exhaust delivered upon the surface of the water therein, and a layer of curled hair adapted to wholly close the mouth of said receptacle, and to be kept constantly moistened by the spray arising from the water in the receptacle, substantially as and for the purpose set forth. 3rd. In a carpet-cleaner, the combination with the casing, the carpet-beating device, and the air-exhaust apparatus, of a water receptacle having the air-exhaust delivered upon the surface of the water therein, a wire screen closing the mouth of said receptacle, and a layer of curled hair supported by said screen and adapted to be kept constantly moistened by the spray arising from the agitated water in the receptacle, substantially as and for the purpose set forth. 4th. In a carpet-cleaner, the combination of a series of carpet-beating arms, a casing snugly containing the same, a fan casing and fan blower centrally located

upon said beater casing, ducts leading from the top of said beater casing and discharging centrally to each side of said fan blower, means for actuating said fan blower and beater arms, a water receptacle located immediately behind said fan blower, and a flue taking the exhaust from the fan and discharging upon the surface of the water in said receptacle, substantially as and for the purpose set forth. 5th. In a carpet-cleaner, the combination with the casing, the rocker shaft and the beater arms elastically impressed downward, of the rigid arm projecting from said rocker shaft, the revoluble wheel located above said arm, and the striking wheels linked to said revoluble wheel, as set forth, whereby the rotation of the latter wheel is adapted by the forcible impact with said rigid arm of said striking wheels to actuate said beaters. 6th. In a carpet-cleaner, the combination with the beating device and the casing snugly enclosing the same, of the fan located upon said casing, and provided with a casing of its own centrally communicating with said beater casing, the supporting frame extended rearwardly from said casing, and the water receptacle supported upon said frame, and means for detachably securing said receptacle in communication with said fan, substantially as and for the purpose set forth.

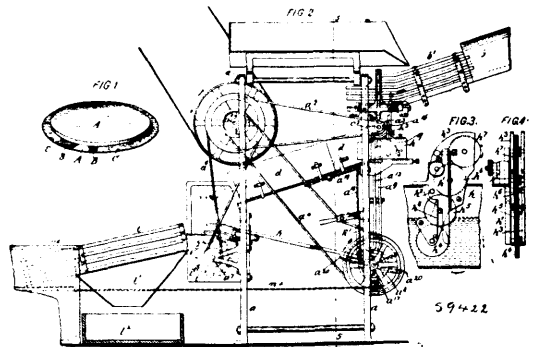
No. 59,421. Corrugated Armor Plate. (*Bouclier*)



Carl Fredrik Flodquist and Charles Gustav Anderson, both of Brooklyn, New York, U.S.A., 25th March, 1898; 6 years. (Filed 17th July, 1897.)

Claim. 1st. An armor plate provided on its outer surface with ribs or corrugations, substantially as shown and described. 2nd. An armor plate provided on its outer surface with ribs or corrugations which are semi-circular in cross-section, substantially as shown and described.

No. 59,422. Machines for Lining Covers of Metal Cans.
(*Machine pour doubler les couvercles de boîtes métalliques.*)

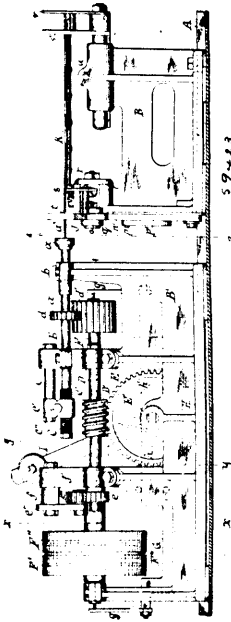


Max Ams, assignee of Julius Brenzinger, both of New York, State of New York, U.S.A., 25th March, 1898; 6 years. (Filed 27th January, 1898.)

Claim.—1st. A machine for lining covers, composed of means for applying a moist adhesive coating to the cover and means for apply-

ing a powdered film to the moist coating, substantially as specified. 2nd. A machine for lining covers, composed of means for applying a moist adhesive coating to the cover, means for applying a powdered film to the moist coating and means for drying the coating, substantially as specified. 3rd. A machine for lining covers, composed of means for revolving the cover, a fountain for holding an adhesive material, means for conveying the adhesive material from the fountain to the cover as the latter is revolved, a powder box, a rotating wheel within the same, and means for conveying the cover to the powder box, substantially as specified. 4th. In a machine for lining covers, the combination of a clamp for holding and revolving the covers with a fountain for holding an adhesive material, means for conveying the adhesive material from the fountain to the covers as the latter are revolved, stops for retarding the motion of the covers as they are fed to the clamp, and means for operating the stops, substantially as specified. 5th. In a machine for lining covers, a dusting roller provided with a series of fingers for stirring the powder and with a series of scoops for throwing the powder upon the covers, substantially as specified. 6th. In a machine for lining covers, the combination of means for revolving the cover, with a fountain for holding an adhesive material, means for applying the adhesive material to the cover as the latter is revolved, a duplex dusting wheel having two cover seats, means for conveying the cover to the dusting wheel, and a switching tongue for conveying alternate covers to opposite seat on the wheel, substantially as specified. 7th. In a machine for lining covers, the combination of a clamp for revolving the cover, with a fountain for holding an adhesive material, means for applying the adhesive material to the cover as the latter is revolved a series of stops to retard the motion of the cover, a powder box, a dusting wheel having a series of scoops and fingers, and means for conveying the cover to the dusting wheel, substantially as specified. 8th. In a machine for lining covers, the combination of a fountain for holding an adhesive material with means for applying a moist adhesive coating to the cover, a powder box, means for applying a powdered film to the moist coating, a drying chamber, a revolving plate and eccentric guide within the chamber, and means for feeding the cover from the powder box to the revolving plate, substantially as specified.

No. 59,423. Threading Machine. (Machine à tarander.)



The Morse Keefer Cycle Supply Company, assignee of Arthur Jacob Morse, all of Salisbury, Connecticut, U.S.A., 25th March, 1898; 6 years. (Filed 27th January, 1898.)

Claim.—1st. In a threading machine, the combination with means for holding the work, comprising a clamp and a support for the work pivoted horizontally to one side and adapted to be raised to an inclined position, and the threading die and its carrying spindle, of means for rotating the spindle, and suitable means for advancing said spindle upon the work corresponding to the thread but independent of the threading die, as set forth. 2nd. In a threading machine, the combination with means for holding the work, comprising a clamp and a support for the work pivoted horizontally to one side and adapted to be raised to an inclined position, and the threading die and its carrying spindle, of means for rotating the spindle, a threaded part on the spindle corresponding to the thread formed by the die, and a stationary threaded bearing for said part, as and for the purpose set forth. 3rd. In a threading machine, the combination with means for holding the

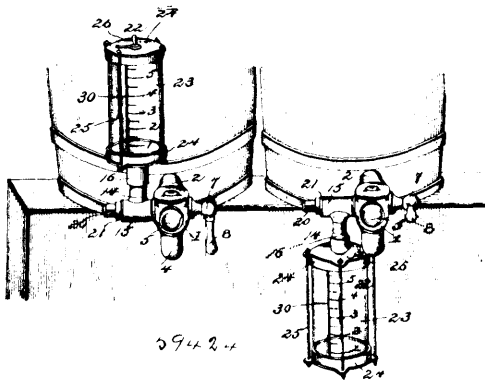
work, comprising vertical jaws, a pivoted support, and means for operating both simultaneously, and the threading die and its carrying spindle, of means for rotating the spindle, suitable means for advancing said spindle upon the work corresponding to the thread but independent of the threading die, and means also to automatically reverse the movement of the spindle, as set forth. 4th. In a threading machine, the combination with means for holding the work, the threading die and its carrying spindle, of a driving shaft geared to the spindle, loose pulleys on the driving shaft, a friction disc fast on the shaft between the pulleys to engage either of them, a sliding bar engaging the ends of the shaft to move the shaft longitudinally, a threaded part on the spindle corresponding to the thread formed by the die, and a stationary threaded bearing for said part, as and for the purpose set forth. 5th. In a threading machine, the combination with means for holding the work, the threading die and its carrying spindle, of a driving shaft geared to the spindle, loose pulleys on the driving shaft, means to hold them apart, a friction disc fast on the shaft between the pulleys to engage either of them, a sliding bar engaging the ends of the shaft, means operated by the carrying spindle and connected to the bar to move the shaft longitudinally alternately in opposite directions, a threaded part on the spindle corresponding to the thread formed by the die, and a stationary threaded bearing for said part, as and for the purpose set forth. 6th. In a threading machine, the combination with means for holding the work, the threading die and its carrying spindle, of a driving shaft geared to the spindle, loose pulleys on the driving shaft, a friction disc fast on the shaft between the pulleys to engage either of them, said shaft being movable longitudinally, a sliding bar below the driving shaft connected at its ends with the shaft, a cam adapted to engage pins on said bar to move the latter longitudinally in opposite directions, a threaded part on the spindle corresponding to the thread formed by the die, and a stationary threaded bearing for said part, as and for the purpose set forth. 7th. In a threading machine, the combination with means for holding the work, the threading die and its carrying spindle, of a driving shaft geared to the spindle, loose pulleys on the driving shaft, a friction disc fast on the shaft between the pulleys to engage either of them, said shaft being movable longitudinally, a sliding bar below the driving shaft connected to its ends with the shaft, a cam adapted to engage pins on said bar to move the latter longitudinally in opposite directions, a worm shaft geared to the driving shaft, a wheel engaging the worm, projections on the cam and worm-wheel adapted to engage each other, threaded part on the carrying spindle corresponding to the thread formed by the die, and a stationary threaded bearing for said part to turn in, substantially as described and shown. 8th. In a threading machine, the combination with means for holding the work, the threading die and its carrying spindle, of a driving shaft geared to the spindle, loose pulleys on the driving shaft, a friction disc fast on the shaft between the pulleys to engage either of them, said shaft being movable longitudinally, a sliding bar below the driving shaft connected at its ends with the shaft, a cam adapted to engage pins on said bar to move the latter longitudinally in opposite directions, a worm shaft geared to the driving shaft, a wheel engaging the worm, projections on the cam and worm-wheel adapted to engage each other, a weighted arm secured to the cam, a removable threaded tube on the carrying spindle, and a stationary threaded bearing for said tube to turn in, substantially as described. 9th. In a threading machine, the combination with the threading die and its carrying spindle, of a pivoted supporting plate for the work, clamping jaws, adjustable guides, a driving shaft geared to the spindle, loose pulleys on the driving shaft, a friction disc fast on the shaft between the pulleys to engage either of them, said shaft being movable longitudinally, a sliding bar below the driving shaft connected at its ends with the shaft, a cam adapted to engage pins on said bar to move the latter longitudinally in opposite directions, a threaded part on the spindle corresponding to the thread formed by the die, and a stationary threaded bearing for said part, as and for the purpose set forth. 10th. In a threading machine, the combination of a pivoted supporting plate for the work, clamping jaws, a cam to operate the jaws, a handle to turn the cam and raise the plate, guides, a driving shaft geared to the spindle, loose pulleys on the driving shaft, a friction disc fast on the shaft between the pulleys to engage either of them, said shaft being movable longitudinally, a sliding bar below the driving shaft connected at its ends with the shaft, an arm adapted to engage pins on said bar to move the latter longitudinally in opposite directions, a threaded part on the spindle corresponding to the thread formed by the die, and a stationary threaded bearing for said part, as and for the purpose set forth.

No. 59,424. Measuring Faucet. (Fausset.)

Benjamin F. Beard, Joel G. W. Yowell, Alphonse Brewster and Oscar F. Brewster, all of Pine Bluff, Arkansas, U.S.A., 25th March, 1898; 6 years. (Filed 25th January, 1898.)

Claim.—1st. The combination with a faucet having a lateral extension intermediate its ends provided with a horizontal bore, and a key fitted in said faucet to intersect its longitudinal bore and establish communication with said horizontal bore in the extension and the longitudinal bore of the faucet on either side of the key, said extension having also a vertical bore extending through it and intersecting its horizontal bore, combined with a measuring-faucet pivotally connected at one end on said extension and provided with

a passage leading from its interior and adapted to communicate with either end of the vertical bore in said lateral extension,



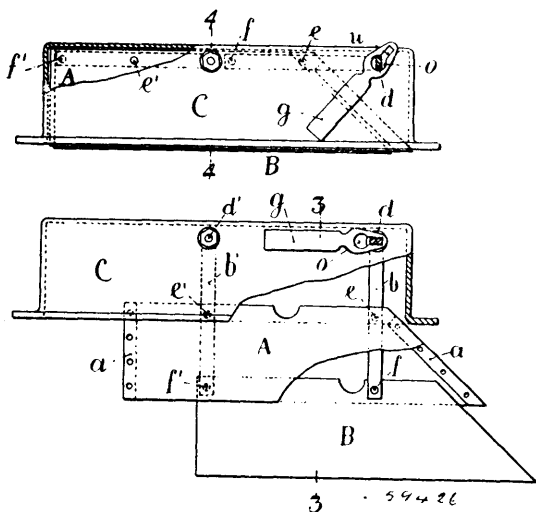
substantially as and for the purpose specified. 2nd. The combination with a faucet having a lateral extension intermediate its ends and provided with a horizontal bore opening out of the side opposite the said extension and extending longitudinally into said extension and intersecting the longitudinal bore of the faucet, said extension having a vertical bore extending through it and intersecting its horizontal bore, and a key seated in said horizontal bore, and in the faucet and having a longitudinally-extending bore communicating with the horizontal bore in the extension, said key having also a side opening communicating with its longitudinal bore and adapted to be registered with the longitudinal bore of the faucet on either side of the key, combined with a sleeve fitted on the side extension to turn thereon and inclosing the vertical bore therein, a measuring vessel attached to the sleeve and provided with a passage leading from its interior and adapted to communicate with either end of the vertical bore in said extension, substantially as and for the purpose specified.

No. 59,425. Aluminum Solder. (*Alliage pour aluminium.*)

Grant Hammond, San Francisco, and Thomas Flint, San Juan, both in California, U.S.A., 25th March, 1898; 6 years. (Filed 28th January, 1898.)

Claim.—1st. A solder for aluminum consisting of tin, silver, zinc and aluminum, the proportion of tin being in excess of the silver and the proportion of silver being largely in excess of the zinc. 2nd. A solder for aluminum consisting of tin, 100 parts, silver, 20 parts, zinc, 10 parts, and aluminum from 1 to 6 parts.

No. 59,426. Centreboard for Vessels. (*Semelle de bateau.*)

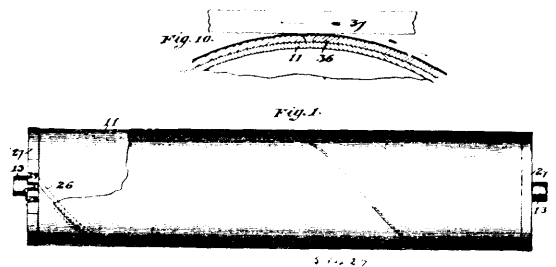


Edgar S. Hicks and David H. Valentine, both of Brooklyn, New York, U.S.A., 25th March, 1898; 6 years. (Filed 31st January, 1898.)

Claim.—1st. A folding centreboard consisting of a hollow and of a solid section, the solid section being adapted to recede into the hollow and both to recede into the box provided in the hold of a vessel, bolts pillowed in the sides of the box, double braces rigidly connected to the bolts and pivotally connected to the sections of the centreboard, separately to the hollow section and jointly to the

solid section, thus connecting the two sections with each other and both with the box, and forming together with the sections a frame foldable in plane, and of means for operating the centreboard. 2nd. In a folding centreboard the combination with a hollow section, suspended on double braces rigidly secured on bolts pillowed in the sides of the centreboard box and adapted to be operated by a handle fitted on the projecting head of one of the bolts, of a solid section pivotally connected to the ends of the double braces and adapted to be operated thereby conjointly with the hollow section. 3rd. In a folding centreboard the combination with a hollow and of a solid section, the solid section being adapted to recede into the hollow and both to recede into the box provided in the hold of the vessel, of double braces rigidly secured on bolts pillowed in the sides of the centreboard-box and adapted to be operated by a handle fitted on the projecting head of one of the bolts, and pivotally connected to the section of the centreboard, separately to the hollow section and jointly to the solid section, thus connecting the two sections with each other and both with the box.

No. 59,427. Abrading Cylinder. (*Cylindre à émietter.*)

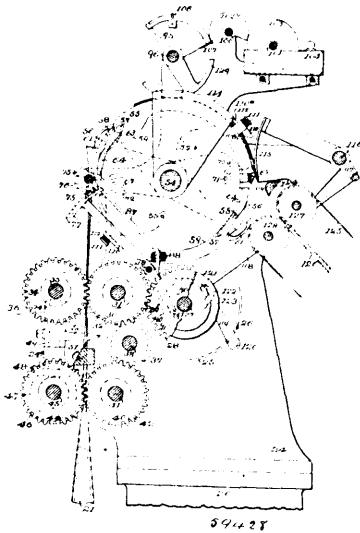


Porter B. Yates and Louis D. Forbes, assignees of Franklin Lincoln Lane and Harrison Joseph Mitchell, all of Beloit, Wisconsin, U.S.A., 25th March, 1898; 6 years. (Filed 7th February, 1898.)

Claim.—1st. An abrading cylinder having an abrading material spirally wound thereon, and a longitudinally movable clamping ring over which the abrading material projects, and to which it is secured, and by the movement whereof the abrading material may be tightened, substantially as described. 2nd. An abrading cylinder having an abrading material spirally wound thereon, and a rotatably and longitudinally movable clamping ring, over which the abrading material projects, and to which it is secured, and by the movement whereof, the abrading material may be tightened upon the cylinder, substantially as described. 3rd. An abrading cylinder having a spiral groove in its periphery, and an abrading material spirally wound thereon, the edges of the spirals registering with the spiral groove, substantially as described. 4th. An abrading cylinder having a spiral groove in its periphery, an abrading material spirally wound thereon with the edges of the spirals overlapped above the groove, substantially as described. 5th. An abrading cylinder having a spiral groove in its periphery, abrading material spirally wound thereon with its edges registering with the groove, and its ends adjustably secured, substantially as described. 6th. An abrading cylinder having a spiral groove in its periphery, an abrading material spirally wound thereon, the turns of the spirals registering with the groove, a movable clamping ring over which the abrading material projects, and to which it is secured, and means for moving the clamping ring, whereby to tighten the abrading material. 7th. An abrading cylinder having an abrading material covering the surface thereof, a clamping ring over which the abrading material projects and a clamp consisting of a flexible band or tape for clamping the abrading material to the ring, and means for tightening said tape, substantially as described. 8th. An abrading cylinder having an abrading material wound thereon, a clamping ring over which the material projects, a clamp consisting of a flexible tape, strap or band having one end adapted for engagement with the clamping ring and a rocking arm to which the other end of the tape is made fast and means for moving said arm, whereby to tighten the tape, substantially as described. 9th. An abrading cylinder having an abrading material spirally wound thereon and projecting beyond the end of the cylinder, a clamping ring, to the periphery of which the projecting end of the abrading material is secured, said clamping ring having a threaded connection with a part carried by the cylinder, capable of rotation, but held against longitudinal movement and means for rotating said part, whereby to longitudinally move the clamping ring, substantially as described. 10th. An abrading cylinder having an abrading material spirally wound thereon, a clamping ring to which one end of the abrading material is secured, a sleeve having a threaded engagement with the clamping ring, and confined against longitudinal movement and a pinion carried by the cylinder and adapted to drive said sleeve, substantially as described. 11th. An abrading cylinder having an abrading material spirally wound thereon with its ends projecting beyond the ends of the cylinder, clamping rings over which the ends of the abrading material project and to which they are secured, said rings having threaded hubs, sleeves having threaded engagement with

said hubs, said sleeves being adapted to rotate independently of the cylinder but held from longitudinal movement, a shaft or rod passing through the cylinder and having pinions upon its ends for driving said sleeves and said shaft being adapted for rotation, whereby the clamping rings may be simultaneously longitudinally moved, substantially as described. 12th. An abrading cylinder having an abrading material spirally wound thereon and a shaft whose projected ends form journals for the cylinder, clamping rings adapted to slide upon the shaft, and to which rings the projecting ends of the abrading material are secured, and means for imparting a longitudinal and partially rotary movement to said rings, substantially as and for the purpose described.

No. 59,428. Paper Bag Machine.
(Machine pour faire des sacs en papier.)



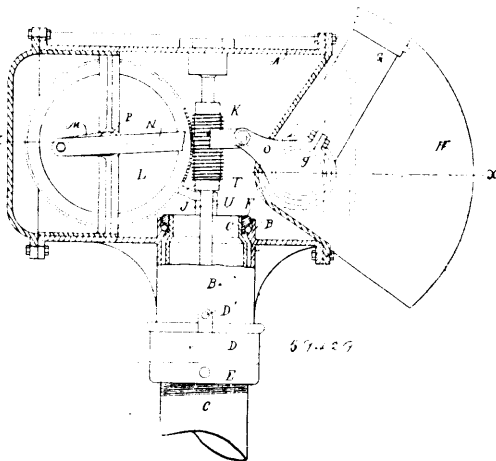
Austin Brainard, assignee of Edward Emil Claussen, both of Hartford, Connecticut, U.S.A., 25th March, 1898: 6 years. (Filed 7th February, 1898.)

Claim.—1st. The combination of a conveyer, an oscillating carrier having its forward end pivoted to the conveyer, mechanism to oscillate the carrier upon its pivot, and devices to co-operate with the carrier during both parts of its oscillation and during its forward movement with the conveyer, to unfold a paper tube and to refold it into a paper bag blank, substantially as described. 2nd. The combination of a conveyer, an oscillating carrier pivoted to the conveyer, mechanism to oscillate the carrier upon its pivot, and a tucker plate vibrating upon trunnions not substantially on a line with its defining edge, all co-operating during the forward movement of the conveyer and during both parts of the oscillation of the carrier and during the vibration of the tucker plate, to unfold a paper tube and to refold it into a paper bag blank, substantially as described. 3rd. The combination of a conveyer, an oscillating carrier pivoted to the conveyer, mechanism to oscillate the carrier upon its pivot, devices to hold the lower ply of a tucked paper tube upon the face of the carrier, a tucker plate vibrating upon trunnions not substantially on a line with its defining edge, and devices to hold the upper ply of a tucked paper tube against the face of the tucker plate, between the line of its trunnions and the line of its defining edge, all co-operating during the forward movement of the conveyer and during both parts of the oscillation of the carrier and during the vibration of the tucker plate, to unfold a tucked paper tube and to refold it into a paper bag blank having inwardly inclined triangular folds, substantially as described. 4th. The combination of a rotating conveyer, two or more oscillating carriers pivoted to the conveyer, mechanism to oscillate each carrier upon its pivot, and one set of mechanism placed and adjusted to co-operate with each of the carriers successively during the forward movement of the conveyer and during both parts of the oscillation of that carrier, to unfold a paper tube and to refold it into a paper bag blank, substantially as described. 5th. The combination of a rotating conveyer, two or more oscillating carriers pivoted to the conveyer, mechanism to oscillate each carrier upon its pivot, devices to hold the lower ply of a tucked paper tube upon the face of each carrier, a tucker plate vibrating upon trunnions not substantially on a line with its defining edge, and devices to hold the upper ply of a tucked paper tube against the face of the tucker plate, between the line of its trunnions and the line of its defining edge, all co-operating during the forward movement of the conveyer and during both parts of the oscillation of each carrier and during the forward vibration of the tucker plate, to unfold a tucked paper tube and to refold it into a paper bag blank having inwardly inclined triangular

folds, substantially as described. 6th. In a paper bag machine, the combination of the cylinder provided with a mutilation, the carrier pivotally mounted on that cylinder, and means for imparting thereto an oscillatory motion by a cam and adapted to swing the same into a mutilation of the cylinder, the folding surface of that carrier forming the continuation of the folding surface of the cylinder when the carrier is in its normal position, and devices co-operating with that carrier to effect the unfolding of the tucked paper tube, substantially as described. 7th. In a paper bag machine, the combination of the cylinder provided with a mutilation, the carrier pivotally mounted on that cylinder and means for imparting thereto an oscillatory motion by a cam, and adapted to swing the same into the mutilation of the cylinder, the folding surface of that carrier forming the continuation of the folding surface of the cylinder, when the carrier is in its normal position, and being provided with the front clip and the two oppositely disposed side clips, and devices co-operating with the carrier to effect the unfolding of the tucked paper tube, substantially as described. 8th. In a paper bag machine, the combination of a conveyer, an oscillating carrier pivoted thereto, and provided with the means to hold the lower part of the tubular blank thereto, the tucker plate provided with means to hold the upper part of the tubular blank, the parts combined and operating to distend and unfold the tucked paper tube while the carrier is oscillated, and operating means to cause the tucker plate to vibrate and define the primary transverse folding line across the blank, the whole operating to convert the blank into the diamond form, substantially as described, while the blank is carried onward by the conveyer. 9th. In a paper bag machine, the combination of a conveyer, an oscillating carrier pivoted thereto, operating means to cause the same to oscillate and means to hold the lower part of the tubular blank thereto, the tucker plate trunnioned in the uprights and provided with the side nippers, operating means to cause the tucker plate to vibrate, and means to close the nippers on the tucker plate, all parts combined and operating to distend and unfold the tucked paper tube and form the inside triangular folds while the carrier oscillates and the tucker plate defines the primary transverse folding line across the blank, and operating to convert the blank into the diamond form while the blank is carried onward by the conveyer, substantially as described. 10th. In a paper bag machine, the combination of the conveyer, the carrier pivotally mounted thereon, operating means to cause the same to be oscillated, and the front clip and the two oppositely disposed side clips arranged to swing down upon the lower part of the tubular blank and hold the same to the carrier, the tucker plate trunnioned in the uprights and provided with the side nippers, operating means to cause the side nippers to swing down onto the tucker plate and hold the upper part of the tubular blank, all parts combined and operating to distend and unfold the tubular blank to form the inside triangular folds while the tucker plate defines the primary transverse folding line across the blank and operating to convert the tucked paper tube into the diamond form, while the same is carried onward by the conveyer, substantially as described. 11th. In a paper bag machine, the combination of the cylinder provided with the mutilation, the carrier pivotally mounted on the cylinder, means for imparting thereto an oscillatory motion, and a front clip and two oppositely disposed side clips, the tucker plate trunnioned in uprights and provided with the side nippers, and operating means to vibrate the tucker plate so that the folding edge travels with the combined movement of the cylinder, and the carrier in order to define the primary transverse folding line, substantially as described. 12th. In a paper machine, the combination of the cylinder provided with a mutilation, the carrier pivotally mounted on the cylinder, means for imparting thereto an oscillatory motion and a front clip and the two oppositely disposed side clips arranged to swing down upon the lower part of the tubular blank and hold the same to the carrier, the tucker plate trunnioned in the uprights 23 and 24 and provided with the side nippers, and operating means to vibrate the tucker plate so that the folding edge travels with the combined movement of the rotating cylinder and the oscillating carrier to define the primary transverse folding line and unfold the tucked paper tube into the diamond form while the blank is being carried onward, substantially as described. 13th. A folding bed adapted to support one side of a paper bag blank, a tucker plate having a folding edge adapted to define the transverse folding line across the blank on the other side of the blank and provided with trunnions, slides adapted to reciprocate on said trunnions, nippers pivotally mounted on the slides, the annular collar surrounding the slides, and operating means to carry the slides with the nipper laterally, substantially as described. 14th. A carrier provided with means adapted to support and hold one side of a paper bag blank, a tucker plate having a folding edge adapted to define the transverse folding line across the blank on the other side thereof and provided with trunnions mounted in the uprights of the machine with means to cause the same to be vibrated, the slides adapted to slide on the trunnion and carrying the nippers pivotally mounted thereon, the spring 92 for holding the nippers in the normally open position, the annular collar surrounding the slides and operating means for carrying the slides with the nippers laterally, substantially as described. 15th. A carrier provided with means to support and hold one side of a paper bag blank, a tucker plate having a folding edge adapted to define a transverse folding line across the blank on the other side thereof and provided with trunnions mounted in the uprights of the machine with means to

cause the same to be vibrated, the slides adapted to slide on the trunnions and carrying the nippers pivotally mounted thereon, with the projection 83^b engaging the spline in the trunnions, means to cause the slides to oscillate, and means to cause the same to close and press on the tucker plate all combined and operating, substantially as described. 16th. A folding-bed adapted to hold one side of a paper bag blank, a tucker plate having a folding edge adapted to define the transverse folding line across the blank on the other side thereof, and provided with trunnions mounted in the uprights of the machine and means to cause the same to vibrate, the slides adapted to slide on the trunnions and carrying the nippers pivotally mounted thereon and the springs 92 for holding the nippers in the normally open position, projections 83^b engaging splines of the trunnions and causing the same to vibrate with the trunnions and the tucker plate, substantially as described. 17th. A folding-bed adapted to hold one side of a paper bag blank, a tucker plate adapted to define the primary transverse folding line across the blank on the other side thereof and provided with trunnions mounted in the uprights of the machine, the distance from the centre line of the trunnions to the folding edge of the tucker plate being of substantially the depth of the tucks of the tube, operating means to cause the same to be vibrated, the slides adapted to oscillate upon the trunnions and vibrate with the same and carrying pivotally mounted, bevel-edged side nippers, springs 92, to open the nippers when the projection 83^b is disengaged from the end of the spline, all combined and operating, substantially as described. 18th. In a paper bag machine, the combination of the conveyer, the carrier pivotally connected thereto, operating means consisting of a cam to cause the same to be oscillated, the plicators pivotally mounted on oppositely disposed sides of the carriers and operating means consisting of a cam to cause the same to sweep over the traveling folding bed of the carrier as the same is carried along by the conveyer, substantially as described. 19th. In a paper bag machine, the combination of a cylinder, provided with a mutilation, the carrier pivotally mounted on the cylinder and means for imparting thereto an oscillatory motion, the plicators pivotally mounted in oppositely disposed sides of the carrier, and operating means consisting of a cam to cause the same to sweep over the surface of the carrier directly back of the creaser blade, substantially as described. 20th. In a paper bag machine, the combination of a cylinder, provided with a mutilation, the carrier pivotally mounted on the cylinder and means for imparting thereto an oscillatory motion, the plicators pivotally mounted in oppositely disposed sides of that carrier, and operating means consisting of a cam to cause the same to sweep over the surface of the carriers directly back of the creaser blade co-acting with the transverse creaser groove 109 as the carrier is propelled onward by the cylinder, substantially as described.

No. 59,429. Nozzle. (Lance.)



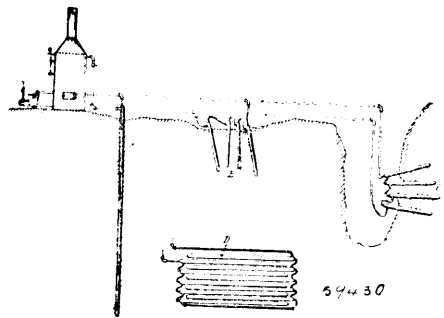
John W. Suetterle, assignee of Joseph H. Judge, both of Milwaukee, Wisconsin, U.S.A., 25th March, 1898; 6 years. (Filed 5th February, 1898.)

Claim. 1st. The combination of a water tight shell, a water supply pipe communicating with the shell, a nozzle secured to said shell, through which the water is discharged, a water actuated propeller located in the supply pipe, and mechanism located within said shell for communicating the motion of the propeller to the nozzle. 11th. The combination of a water tight shell, a water supply pipe communicating therewith, a discharge nozzle having a branched supporting duct or ducts pivotally secured to the shell, and communicating between the shell and nozzle, a propeller located in the supply pipe, and mechanism located within said shell for communicating motion from the propeller to the nozzle. 3rd. The combination of a water tight rotatable shell, a water supply pipe communicating therewith, a discharge nozzle secured to said shell and water actuated propeller located in the supply pipe, and

mechanism within said shell for communicating motion from the propeller to the shell. 4th. The combination of a supply pipe, a shell rotatably secured thereto and provided with an oscillatory nozzle, a water actuated propeller located in said supply pipe, and means for communicating independent motions therefrom to the shell and nozzle, substantially as described. 5th. The combination of a supply pipe, a shell rotatably secured to said pipe, a T-shaped nozzle pivotally secured to the shell, and adapted to permit the escape of water through its supporting ducts, a water actuated propeller located in the supply pipe, and means for communicating independent motions therefrom to the shell and nozzle, substantially as described. 6th. The combination of a supply pipe, a shell rotatably secured to said pipe, an oscillatory nozzle secured to said shell, a water actuated propeller located in the supply pipe with a shaft projecting upwardly into said shell, crank and gearing connections for actuating the nozzle from said shaft, and eccentric connections and gearing for oscillating the shell, substantially as described. 7th. The combination of a supply pipe, a shell rotatably secured to said pipe and provided with a discharge nozzle, a water actuated propeller located in the supply pipe and provided with an upwardly projecting shaft, a crank actuated from said shaft by suitable gearing, and a rod connecting said crank with a fixed arm projecting from the upper end of the supply pipe, whereby an oscillatory motion is communicated from the propeller to the shell, substantially as described.

No. 59,430. Apparatus for Thawing Frozen Ground.

(Appareil pour dégeler la terre.)

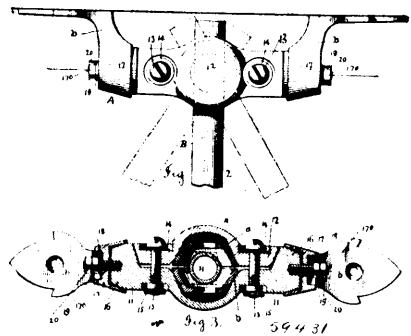


Silas Bradley, Aylmer, and Edward J. Rainboth, Ottawa, both of Ontario, Canada, 25th March, 1898; 6 years. (Filed 12th February, 1898.)

Claim.—A steam tubular heater having the smaller tube B within the larger one A through one end of which it passes by a close fitting joint at C another opening in tube A, is made as at D which as well as the end of tube B, as at C are to serve for connecting with steam pipes or hose, so that the steam shall enter and pass through one tube and then pass out through the other end and continue to other heaters or be condensed and returned to boiler, substantially as and for the purpose hereinbefore set forth.

No. 59,431. Support for Electric Lamps, etc.

(Support pour lampes électriques, etc.)

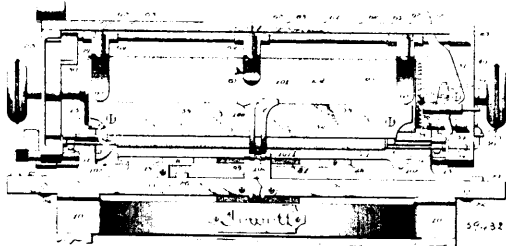


Otis Converse White, Worcester, Massachusetts, U.S.A., 25th March, 1898; 6 years. (Filed 18th September, 1896.)

Claim.—1st. The universal joint A for an electric light fixture, comprising clamping jaws *a* and *b*, a pivotally-supported, two-part socket for said clamping-jaws, and adjustable spring, friction devices for holding the clamping-jaws and socket in their adjusted position respectively, substantially as described. 2nd. The swivel-and-ellbow joint C, comprising a section *f* for rotably engaging one of the pipe-sections, a section *l* pivotally connected to the section *f*, adjust-

able, spring-friction devices for holding said parts in their adjusted position, substantially as described. 3rd. An adjustable electric light support, comprising rods or pipe-sections B and D, the universal supporting joint A, substantially of the construction described, and an elbow-joint E connecting the rod D with the lamp-socket, substantially as set forth. 4th. The elbow-joint comprising two concentrically pivoted discs, means for adjustably clamping said discs into frictional engagement, and a counter-balancing spring made in the form of a reversely coiled double spiral secured in place between said discs, one end of the spring being secured to one disc, and the other end of said spring being arranged to engage any one of a series of recesses in the other disc, substantially as described.

No. 59,432. Type Writer. (Clavigraphie.)



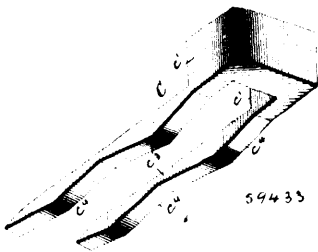
Robert Turner, Des Moines, Iowa, U.S.A., 25th March, 1898: 6 years. (Filed 5th March, 1898.)

Claim.—1st. In a type-writer, the combination of a bar to extend longitudinally of the machine frame and having a V-shaped groove therein, a roller having a grooved periphery rotatably mounted in the machine frame in the rear of said bar, a sliding carriage, a bar fixed thereto and having a V-shaped groove on its under surface bearing balls interposed in said grooves, arms projecting rearwardly from the carriage, a guide rod supported thereby to engage the aforesaid grooved wheel, and a series of anti-friction rollers fixed to the track bar on the machine frame to engage the top surface of the track bar on the sliding carriage frame and a platen-bearing frame hinged to this sliding carriage for the purpose stated. 2nd. The combination with a type-writer platen rotatably mounted, of a ratchet face on one end thereof, an arm pivoted to the platen shaft, a spring for normally holding the arm rearwardly, a sleeve on the outer end of the said arm, a detent in said sleeve to engage the ratchet face, a spring for normally forcing the detent against the ratchet face, a lever fulcrumed to a part of the platen carriage, having its one end in engagement with said arm, to rotate the same and means for limiting the movement of the lever. 3rd. The combination with a type-writer platen rotatably mounted, of a ratchet face on one end thereof, an arm pivoted to the platen shaft, a spring for normally holding the arm rearwardly, a sleeve on the other end of the said arm, a detent in said sleeve to engage the ratchet face, a spring normally forcing the detent against the ratchet face, a lever fulcrumed to a part of the platen carriage having its one end in engagement with said arm, to rotate the same, means for limiting the movement of the lever, a cam attached to the platen frame, and capable of a slight movement thereon, and a pin on the outer end of the said detent to engage said cam and hold the detent away from the ratchet face. 4th. The combination with a type-writer platen rotatably mounted, of a ratchet face on one end thereof, an arm pivoted to the platen shaft, a spring for normally holding the arm rearwardly, a sleeve on the outer end of the said arm, a detent in said sleeve to engage the ratchet face, a spring for normally forcing the detent against the ratchet face, a lever fulcrumed to the part of the platen carriage having its one end in engagement with said arm, to rotate the same, means for limiting the movement of the lever, a cam attached to the platen frame adjacent to said ratchet, a pin projecting therefrom, a spring for normally holding the roller in contact with the ratchet, and an arm on the said lever to engage said pin and force the said roller into positive engagement with the ratchet face at the end of the movement. 5th. The combination with a typewriter platen rotatably mounted, of a ratchet face on one end thereof, an arm pivoted to the platen shaft, a spring for normally holding the arm rearwardly, a sleeve on the outer end of the said arm, a detent in said sleeve to engage the ratchet face, a spring for normally forcing the detent against the ratchet face, a lever fulcrumed to a part of the platen carriage, and having its one end in engagement with said arm to rotate the same, means for limiting the movement of the lever, a cam attached to the platen frame and capable of a slight movement thereon, and a pin on the outer end of the said detent to engage said cam and hold the detent away from the ratchet face, a roller detent mounted in the platen frame adjacent to said ratchet, a pin projecting therefrom, a spring for normally holding the roller in contact with the ratchet, and an arm on the said lever to engage said pin and force the said roller into positive engagement with the ratchet face at the end of its movement. 6th. In a typewriter, a suitable platen, a ratchet face at one end thereof, a spring actuated detent normally held in engagement with the ratchet, a pin on the outer end of the

detent, means for advancing the detent to rotate the platen, a segmental plate pivoted to the platen frame, a cam on said plate to engage the said pin and hold the detent out of contact with the ratchet until it passes beyond the cam. 7th. In a typewriter, a suitable platen, a ratchet face at one end thereof, a spring actuated detent normally held in engagement with the ratchet, a pin on the outer end of the detent, means for advancing the detent to rotate the platen, a segmental plate pivoted to the platen frame, a cam on said plate to engage the said pin and hold the detent out of contact with the ratchet until it passes beyond the cam, a roller detent mounted in the platen frame to engage the ratchet face, a pin on its outer end, a spring for holding it in contact with the ratchet, means for forcing it towards the ratchet when the other detent is advanced to rotate the platen, and a cam on said segmental plate for engaging said post, for the purposes stated. 8th. The combination in a typewriter, of means for rotating the platen, one or two line spaces, or an indefinite distance, comprising an arm pivoted to the platen shaft, a spring actuated detent in its end, a pin on said detent, a spring actuated roller detent mounted in the platen frame, a pin on the outer end, a lever fulcrumed to the platen frame and having arms to engage the aforesaid arm and also said roller detent, a segmental plate pivoted to the platen frame, and two cams thereon to be engaged by said detent pins or posts. 9th. The combination with a device for rotating a platen, one, two, or an indefinite number of line spaces, of a segmental plate pivoted to the platen shaft and having a segmental slot and three notches therein, a screw passed through said slot into the platen frame, a spring actuated bolt mounted in the platen frame to enter any of said notches, and two cams on the outer face thereof, for the purposes stated. 10th. The combination with a platen of two brackets pivoted at their upper ends to the ends of the platen frame in the rear of the platen, and having openings therein, yielding pressure devices for holding the roller to the platen, a rod rotatably mounted in the platen frame and extended through said angular openings, and cams on said rods to engage said angular openings, and a lever on one end of said rod. 11th. The combination with a platen of two brackets pivoted at their upper ends to the ends of the platen frame in the rear of the platen, and having angular openings therein, a tension roller mounted in the said brackets, yielding pressure devices for holding the roller to the platen, a rod rotatably mounted in the platen frame and extended through said angular openings, and cams on said rods to engage said angular openings, a lever on one end of the said rod, a guide plate pivoted to the tension roller shaft, and yielding pressure devices for normally holding it adjacent to the platen. 12th. The combination with a platen frame and a platen, of a sleeve rotatably mounted on the platen frame in front of the platen, a bolt slidingly mounted beneath the sleeve at right angles thereto to engage a part of the platen frame, a spring for pressing said bolt forwardly, and a paper finger fixed to the sleeve, substantially as set forth. 13th. The combination with a platen frame and a platen, of a sleeve rotatably mounted on the platen frame in front of the platen, a bolt slidingly mounted beneath the sleeve at right angles thereto to engage a part of the platen frame, a spring for pressing said bolt forwardly, a paper finger fixed to the sleeve, and a set screw passed through a slot in the sleeve into the sleeve support to limit the movement of the finger. 14th. The combination with a platen and a platen frame, of a round bar in the platen frame in front of the platen, a bar beneath the said bar having a flat inner surface and a series of notches therein, a sleeve rotatably mounted on the round bar, a bolt slidingly mounted on the under side of the sleeve, a spring for normally pressing said bolt forwardly into engagement with the rear surface of said notched bar, and a paper finger fixed to the sleeve, substantially as set forth. 15th. In a typewriter, the combination with a suitable carriage of a bar fixed to the machine frame, to extend parallel with the carriage, a scale marked on its top, a plate slidingly mounted in said bar and a stop on said plate, means for securing said plate at any point relative to the bar, and a gravity stop pivoted to the carriage frame and having a square edge on its right side and a bevel on its left for the purposes stated. 16th. In a typewriter, the combination with a suitable carriage of a bar mounted on the machine frame to extend parallel with the carriage, a scale marked on its top, a perforated plate slidingly mounted on the inner face of said bar, a stop fixed thereto, a spring-actuated bolt in the said bar to enter said perforations, and a gravity stop pivoted to the carriage frame and having a square surface on its right edge and a bevel on its left, substantially as set forth. 17th. In a typewriter, the combination with a sliding carriage having a feed rack, of a suitable feed dog pivotally mounted adjacent to the feed rack, an arm projecting downwardly therefrom, a rod pivoted in suitable bearings in the rear of the machine frame, a worm gear on its one end and a pin in its central portion, an arm mounted on said rod and extended upwardly therefrom, a rod slidingly mounted with its one end in engagement with said arm and its other with the arm on the feed dog, and a spring on the said pivoted rod having its central portion in engagement with said pin and its end in engagement with said arm on the rod, and a shaft rotatably mounted having a worm gear on its one end to mesh with the aforesaid worm gear and a thumb wheel on its other end for the purposes stated. 18th. In a typewriter having a sliding carriage and a feed rack thereon, the combination of a pivoted feed dog, capable of a slight movement longitudinally of the platen, a spring for normally holding the dog to one limit of its movement and a shaft rotatably mounted in suitable bearings having a lever on

one end and a cam on its other end to engage the shaft to which the feed dogs are fixed, substantially as set forth. 19th. In a typewriter having a sliding carriage and a feed rack thereon the combination of a rock shaft capable of a slight longitudinal movement, a collar thereon, a spring for holding the shaft to its limit of movement, a feed dog fixed thereto, a second shaft rotatably mounted having a lever on one end and a cam on its other end to engage said collar, substantially as set forth. 20th. In a typewriter, the combination of a platen bearing frame hinged at its rear end and capable of swinging to an approximately vertical position, a support fixed to the machine frame and extended above the pivotal point of the said platen bearing frame a curved arm pivotally mounted at the top of said support and having on its outer end a straight edge to extend parallel with the printing line on the platen, and a notch of approximately one letter space formed in the said straight edge at the printing centre of the machine, and a spring to engage the said curved arm and to yieldingly hold it against the platen, said parts being so proportioned and arranged that when the platen is in its elevated position the straight edge on the end of the curved arm will lie parallel with the printing line of the platen, and when the platen is in its lower position ready for printing the said straight edge will be withdrawn from the printing line in a direction toward the pivotal point of the arm, substantially as and for the purposes stated. 21st. In a typewriter, the combination of a sliding carriage, a platen bearing frame hinged to the sliding carriage, a rod fixed to the platen bearing frame to extend longitudinally thereof, a paper table detachably and pivotally connected with the said rod, and links pivoted to the ends near the outer edge of the paper table and detachably and pivotally connected with the sliding carriage frame at a point in the rear of the pivotal point of the platen bearing frame, substantially as and for the purposes stated. 22nd. The combination in a typewriter having a sliding carriage and a platen frame hinged thereto, of a paper table, two leaf springs fixed to its under side and arranged to detachably and pivotally engage a part of the platen frame, two arms pivoted to the ends of the paper table and detachably and pivotally connected with the said sliding carriers, substantially as and for the purposes stated.

No. 59,433. Track Fastening Device.
(*Attache pour rails.*)



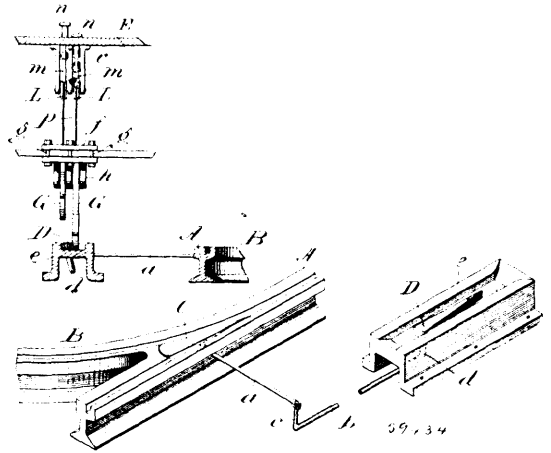
Frederick Laforest, Edmunston, New Brunswick, Canada, 25th March, 1898; 6 years. (Filed 11th January, 1898.)

Claim.—1st. A spike protector and securer, comprising a head adapted to partially surround the head of the spike, plates extending rearwardly from said head adapted to be placed under the object held in position by said spike, and means for preventing the withdrawal of said plates. 2nd. A spike protector and securer, comprising a head having a top and side flanges extending rearwardly therefrom, and plates having a toothed under surface, extending rearwardly from said flanges, substantially as described. 3rd. A spike protector and securer, comprising a head adapted to partially surround the head of the spike, and plates extending rearwardly from said head, adapted to be placed under the object held in position by said spike, said plates forming a wearing surface for said object. 4th. A spike protector and securer, comprising a head adapted to partially surround the head of the spike, plates extending rearwardly from said head, adapted to be placed under the object held in position by said spike, said plates forming a wearing surface for said object, and means for preventing the withdrawal of said plates. 5th. A spike protector and securer, comprising a head having top and side flanges extending rearwardly therefrom, and plates having a toothed under surface, extending rearwardly from said flanges, said plates forming wearing surfaces for the object held in position by said spikes. 6th. A spike protector and securer, comprising a head adapted to partially surround the head of the spike, and plates formed integrally with and extending rearwardly from said head, having a toothed under surface, and adapted to form a wearing surface plate for the object held in position by said spike.

No. 59,434. Railway Switch. (*Aiguille de chemin de fer.*)
Franklin Rice, Dayton, Ohio, U.S.A., 25th March, 1898; 6 years. (Filed 21st February, 1898.)

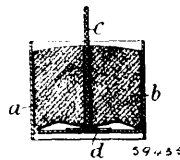
Claim.—1st. In a railway switch, the combination, with the switch rail, and a wedge, of a rock shaft connecting same whereby the shifting of the wedge will turn the switch, substantially as shown and described. 2nd. In a railway switch, the combination, with

the switch rail and a wedge, of a rock shaft, with arms, connecting same at opposite ends to said switch rail and wedge, whereby the



shifting of the wedge will turn the switch, substantially as shown and described. 3rd. In a railway switch, the combination, with the switch rail, and a wedge, of a rock shaft, with arms connecting same at opposite ends to switch rail and wedge, with mechanism on the car to contact with either side of the wedge, substantially as shown and described. 5th. In a railway switch, the combination, with the switch rail and a wedge, of a rod shaft connecting same, a pair of levers on the car with means for keeping same normally raised and connecting mechanism under control of the motorman for depressing either of said levers to contact with either side of said wedge to shift the switch, substantially as shown and described.

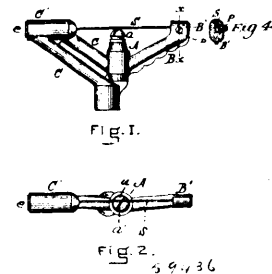
No. 59,435. Method of Making Night Lights and Candles. (*Méthode de fabrication de chandelles, etc.*)



John Edward Glenister, London, England, 25th March, 1898; 6 years. (Filed 15th May, 1897.)

Claim.—A night-light or candle for curative and disinfecting purposes, consisting of the following ingredients mixed together in the following proportions; wax or fat about 14 lbs., eucalyptus oil about 3 oz., terebene about 6 oz., creosote about 3 ozs., stramonium about 2 ozs., camphor about 1 oz., menthol about 1 oz., infusion of the bark of Mountain Ash about 1 oz., thoroughly mixed, combined and moulded to the required form, substantially as specified.

No. 59,436. Gas Burner. (*Bec à gaz.*)

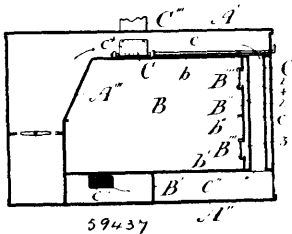


Frank Perry Barney, Norton, Massachusetts, U.S.A., 25th March, 1898; 6 years. (Filed 10th February, 1898.)

Claim.—1st. In a self-closing gas burner, the burner proper A provided with the chamber F, the bracket B extending upward from one side of the burner, the bracket C extending upward from the opposite side of the burner and provided with the connecting horizontal chambers D, E and valve-seat D¹, said bracket C being formed with a passage H connecting the chamber in the burner

with the chamber E and with a passage K connecting the chamber D with the gas inlet, and the valve L and wire S extending horizontally from said valve and from the bracket C over the burner to the bracket B and rigidly secured to the latter, substantially as described. 2nd. In a self-closing gas-burner, the burner proper A provided with the chamber F, brackets extending upward from and on opposite sides of the burner, one of said brackets being provided with a horizontal chamber formed with a seat for a horizontally operating valve and with passages connecting said chamber on opposite sides of the valve-seat respectively with the chamber F and the gas inlet, a valve within said horizontal chamber, a wire extending therefrom over the burner tip on one side of its centre to the opposite bracket and rigidly secured thereto, and the burner tip a with its slot set at an acute angle with the wire, substantially as set forth. 3rd. In a self-closing gas-burner, the burner proper A provided with the chamber F, brackets extending upward from and on opposite sides of the burner, one of said brackets being provided with a horizontal chamber formed with a seat for a horizontally operating valve and with passages connecting said chamber on opposite sides of the valve-seat respectively with the chamber F and the gas inlet, a valve within said horizontal chamber, a wire extending therefrom over the burner tip on one side of its centre to the opposite bracket, and a binding screw set against the wire so that the wire intersects its binding end on one side only, thus enabling the screw to tighten the wire as it is turned, substantially as described.

No. 59,437. Cooking Range. (Poêle de cuisine.)



Roderick Edward Byrne, Ottawa, Ontario, Canada, 25th March, 1898; 6 years. (Filed 2nd March, 1898.)

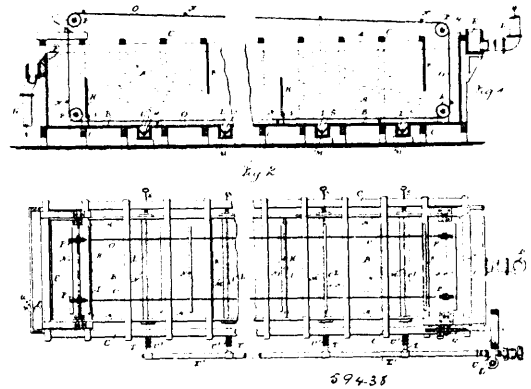
Claim.—1st. In a cooking range, a series of tubes acting as flues at the outer margin of the oven and forming the connection between the top and bottom flues as a down-draught and passing the products of combustion from the space over the top of the oven to the space under the bottom. 2nd. In a cooking range, the combination of the top and bottom plates of the oven extended and joined to a plate which may form the end plate of the range, and a series of tubes at the outer margin of the oven having their ends joined to and opening into said top and bottom plates, substantially as set forth. 3rd. In a cooking range, the combination with the end plate, of the top and bottom plates of the oven extended and joined to said end plate, a series of vertical tubes at the outer margin of the oven having their ends joined to and opening into said top and bottom plates and a plate closing in said tubes and forming the end plate of the oven, substantially as set forth. 4th. In a cooking range, the combination with the end plate, of the top and bottom plate of the oven extended and joined to said end plate, a series of vertical tubes at the outer margin of the oven adjacent to said end plate having their ends joined to and opening into said top and bottom plates so as to form a connection of the spaces above and below said plates respectively, a plate closing in said tubes and forming the end plate of the oven, a series of perforations in said plate provided with adjustable slides, substantially as set forth.

No. 59,438 Settling and Recovering Apparatus for Paper and Pulp Manufacture. (Appareil à déposer et recouvrir pour la manufacture du papier et de la pulpe.)

Warren Curtis, Palmer, New York, U.S.A., 25th March, 1898; 6 years. (Filed 7th February, 1898.)

Claim.—1st. The combination in a settling tank of a supply pipe for leading the water and solid materials into the tank, a baffle board or cylinder beneath which the materials pass, an overflow edge or dam for the escape of water, hoppers in the bottom of the tank, and discharge pipes leading therefrom and scrapers acting at or near the bottom of the tank for moving the solid materials to the hoppers, substantially as set forth. 2nd. The combination in a settling tank of a supply at one end and a discharge at the other end near the level of the water, baffle boards or a cylinder between the supply and the discharge and

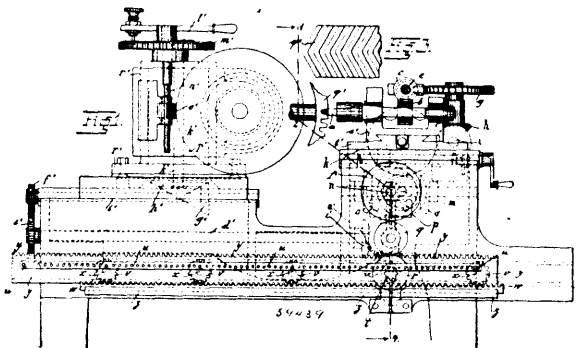
end and a discharge at the other end near the level of the water, baffle boards or a cylinder between the supply and the discharge and



beneath which the materials pass, hoppers in the bottom of the tank for receiving the heavier materials, pipes through which such heavier materials are discharged, means for moving the heavier materials gradually along the bottom of the tank to the hoppers, a storage tank, pipes and a pump for transferring the materials from the settling tank and to the storage vessel and a valve and float for regulating the discharge of the material into the storage vessel, substantially as set forth. 4th. The combination with the settling tank, of scrapers and means for moving the same upon the bottom of the tank for the scrapers to pass below them and means for conveying away the material from the bottom of the tank, substantially as set forth. 5th. The combination with the settling tank, of scrapers and means for moving the same on the bottom of the tank, baffle boards sufficiently high above the bottom of the tank for the scrapers to pass below them, and aprons hanging between the lower portions of the baffle boards and the bottom of the settling tank and yielding as the scrapers pass along, and receptacles for the solid materials acted upon by the scrapers, substantially as set forth. 6th. The settling tank having hoppers in the bottom and delivery pipes in combination with scrapers and mechanism for moving the same gradually, and agitators in the delivery pipes of the hoppers, substantially as set forth. 7th. The combination with the settling tank and of a supply pipe, of baffle boards or a cylinder beneath which the water and heavier materials pass, and a dam at the level of the water and over which the water passes in a thin layer and a trough and pipe for conveying away such water, substantially as set forth. 8th. The combination with the settling tank of hoppers or receptacles in the bottom, scrapers for moving the solid materials to the hoppers, discharge pipes at the bottom of the hoppers, a storage vessel, pipes leading to the same, a centrifugal pump for passing the water and solid materials to the storage vessel, and a float and valve for regulating the discharge of such materials, substantially as set forth.

No. 59,439. Gear Wheel Teeth.

(Dent de roue d'engrenage.)



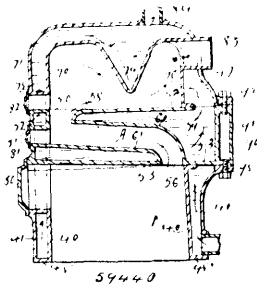
Stanslaw Stückgold, Warsaw, Russia, 25th March, 1898; 6 years. (Filed 11th March, 1898.)

Claim.—1st. A machine for cutting angle teeth in wheels, racks and the like, characterized by a mechanical arrangement adapted to effect the reversal of movement of the article operated (on cog-wheel, rack or the like), always at the moment at which the cutter has reached the centre of the piece operated on, constructed and arranged, substantially as hereinbefore described. 2nd. A machine for cutting angle-teeth in which the article operated on (wheel, rack or the like), and the cutter are moved in such a way that the latter, corresponding to the desired angle of the teeth, cuts obliquely to the direction

of movement of the work piece, characterized by a rack *u* for moving the article to be operated on, being moved alternately in one direction and the other longitudinally by means of a pinion *t* which runs in a constant direction of rotation simultaneously with the cutter *a*, the said pinion *t* for said purpose engaging alternately on the upper and under side of a ladder-shaped rack *u*, the power conveying connection of the two racks *u* and *u* being effected by means of crank discs *r* revolvibly mounted on the one rack *u* in the plane of the axis of the pinion *t* and connected by their crank pins with the other rack *u*, which crank disc *r* by the engagement of the rack *u* with the pinion *t* are held at right angles to the direction of travel of the racks *u* and *u*, and on the passage of each tooth of the ladder rack *u* over the pinion *t* are turned in a semi-circle the rack making a corresponding but parallel movement, constructed and arranged, substantially as hereinbefore described. 3rd. A machine for cutting teeth such as hereinbefore described, characterized by the crank discs *r* being formed as cog-wheels and connected with one another by a common rack bar *w* with the object of producing an exactly simultaneous movement, constructed and arranged, substantially as hereinbefore described. 4th. Cog-wheels, racks and the like having their teeth cut to the form of an angle, constructed and arranged, substantially as hereinbefore described. 5th. Cog-wheels, racks and the like having their teeth cut each to the form of an angle, one arm or half of which is concave and the other convex, constructed and arranged, substantially as hereinbefore described. 6th. A machine for cutting angle teeth, characterized by the reversal of movement of the article operated on (cog-wheel, rack or the like), taking place by means of suitable mechanical apparatus always at the moment or period of time at which the cutter has reached the centre of the piece operated on, constructed and arranged, substantially as hereinbefore described.

No. 59,440. Hot Water Furnace.

(*Fournaise à eau chaude.*)

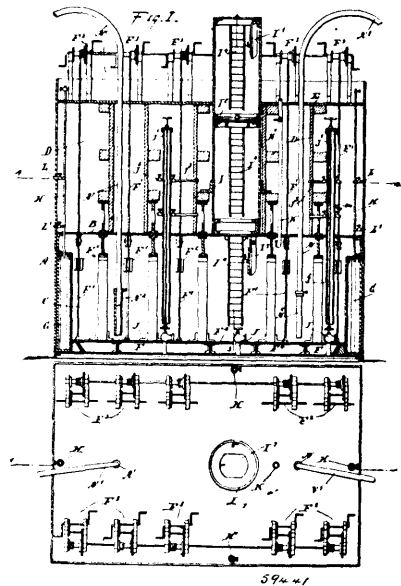


Thomas Joseph Best, Montreal, Quebec, Canada, 25th March, 1898; 6 years. (Filed 10th March, 1898.)

Claim.—1st. A hot water furnace, composed of an ash-pit section, a fire-chamber section, a dome, and an intermediate section, said intermediate section having a fire flue extending at an angle from rear to front and opening at the rear downward into the fire-chamber and at the front upwardly into the dome, for the purpose set forth. 2nd. A hot water furnace, composed of an ash-pit section, a fire-chamber section, a dome, and an intermediate section having a fire flue extending at an angle from rear to front and opening at the rear downward into the fire-chamber and at the front upwardly into the dome, and the dome having a depression in the top thereof, for the purposes set forth. 3rd. A furnace, comprising an ash-pit section, a fire-chamber section, a top section or dome and an intermediate section, the fire-chamber section being enclosed by a water jacket having a rear and a pair of side lateral extensions forming vertical passages, and a return pipe-connection at its lower end, the intermediate section comprising a diagonal passage extending from the lower rear end thereof to the forward top end thereof, a water jacket enclosing said passage and having a rear and a pair of side extensions forming vertical passages corresponding to and registering with the above-mentioned vertical passages, the lower ends of the side passages of this top section or dome being blinded, a flowpipe connection at the upper end of this jacket, and a chimney connection with the top of the interior of said top section or dome, substantially as set forth. 4th. A furnace, comprising an ash-pit section, a fire-chamber section, a top section or dome, and an intermediate section, the fire-chamber section being enclosed by a water jacket having a rear and a pair of side lateral extensions forming vertical passages, and a return pipe connection at its lower end, the intermediate section located above and resting upon said fire-pot section and comprising a diagonal passage extending from the lower rear end thereof to the forward top end thereof, a water jacket enclosing said passage and having a rear and a pair of side extensions forming vertical passages

corresponding to and registering with the above-mentioned vertical passages, the lower end of the rear passage of this intermediate section being blinded, the top section or dome comprising a water jacket having a rear and a pair of side lateral extensions forming vertical passages corresponding to and registering with the above-mentioned vertical passages, the lower ends of the side passages of this top section or dome being blinded, a flowpipe connection at the upper end of this jacket, a downward extension from the interior of the top of said dome and extending transversely thereof, and a chimney connection with the top of the interior of said top section or dome, substantially as set forth. 5th. A furnace comprising a series of independent sections supported one upon the other, the intermediate sections having a series of lateral chambers extending the full height of said section and being formed at their upper and lower ends with screw threaded perforations, and the sections located next above and below said intermediate section being formed with laterally projecting perforated lugs adapted to overlap said chambers and be connected thereto by screw bolts taking therethrough and into said screw threaded perforation, for the purpose set forth. 6th. A furnace comprising an ash-pit section, a fire chamber section, a top section or dome and an intermediate section, the fire chamber section being enclosed by a water jacket having a rear and a pair of side lateral extensions forming vertical passages, and a return pipe connection at its lower end; the intermediate section comprising a diagonal passage extending from the lower rear end thereof, to the forward top end thereof, and a water jacket enclosing said passage and having a rear and a pair of side extensions forming vertical passages corresponding to and registering with the above mentioned vertical passages, the lower end of the rear passage of this intermediate section being blinded; the top-section of dome comprising a water jacket having a rear and a pair of side lateral extensions forming vertical passages corresponding to and registering with the above mentioned vertical passages, the lower ends of the side passages of this top section or dome being blinded, a flow pipe connection at the upper end of this jacket, and a chimney connection with the top of the interior of said top section or dome, the intermediate section also having a series of lateral chambers extending the full height of said section and being formed at their upper and lower ends with screw threaded perforations, and the top and fire pot sections being formed with laterally projecting perforated lugs adapted to overlap said chambers and be connected thereto by the screw bolts taking therethrough and into said screw-threaded perforations substantially as set forth.

No. 59,441. Movable Caisson. (*Caisson mobile.*)

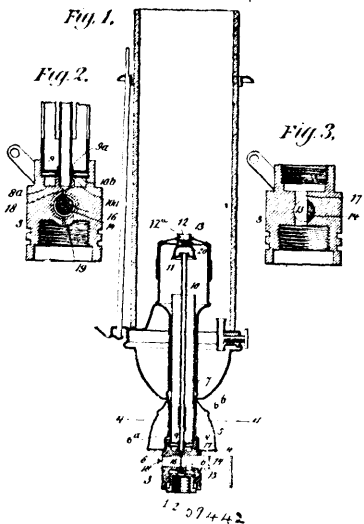


Charles Clayton Lovejoy, New York City, U.S.A., 25th March, 1898; 6 years. (Filed 10th March, 1898.)

Claim.—1st. A caisson provided with a shell or casing, a working chamber in the lower portion of the casing, and a water loading compartment above the working chamber and adapted to be filled with water to keep the casing in position, substantially as shown and described. 2nd. A caisson provided with a casing, and a working chamber in the lower portion of the said casing, and provided with doors in the bottom for opening the chamber to the sand bed, and when closed permitting of converting the caisson into a floating vessel, substantially as shown and described. 3rd. A caisson provided with a casing, a working chamber in the lower portion of the said casing, and provided with doors in the bottom

for opening the chamber to the sand bed, and when closed permitting of converting the caisson into a floating vessel, and an air supply for the said working chamber for forcing the water out of the chamber at the time the doors are closed, and for keeping the river water out of the chamber when the doors are opened, substantially as described. 4th. A caisson provided with a casing, a water loading compartment in the upper portion of the casing, a working chamber in the lower part of the casing, a compressed air supply pipe opening into the working chamber, and water pipes leading from the working chamber to the loading compartment, so that water is forced by the compressed air from the working chamber into the loading compartment, substantially as shown and described. 5th. A caisson provided with a casing, a water loading compartment in the upper portion of the casing, a working chamber in the lower part of the casing, a compressed air supply pipe opening into the working chamber, water pipes leading from the working chamber into the loading compartment, so that the water is forced by the compressed air from the working chamber into the loading compartment, and doors in the bottom of the said working chamber to give access to the sand in the bed of the waterway, substantially as shown and described. 6th. A caisson provided with a casing, a working chamber in the lower portion of the casing, a water loading compartment in the upper part of the casing, means for emptying the water from the working chamber into the loading compartment, and means for discharging the water from the loading compartment to float the caisson, substantially as shown and described. 7th. A caisson provided with a working chamber having hollow bottom doors, and means for heating the same to thaw the bed with which the doors are in contact, substantially as shown and described. 8th. A caisson provided with a working chamber having hollow sides and hollow bottom doors, and means for heating the said sides and doors, substantially as shown and described. 9th. A caisson provided with a working chamber, and valved pipes in the bottom of the chamber for filling the chamber with water to sink the caisson, substantially as shown and described. 10th. A caisson provided with a working chamber, valved pipes in the bottom of the chamber for filling the chamber with water to sink the caisson, and means for manipulating the said valves from the deck of the caisson, substantially as shown and described.

No. 59,442. Gas Burner. (Bec à gaz.)

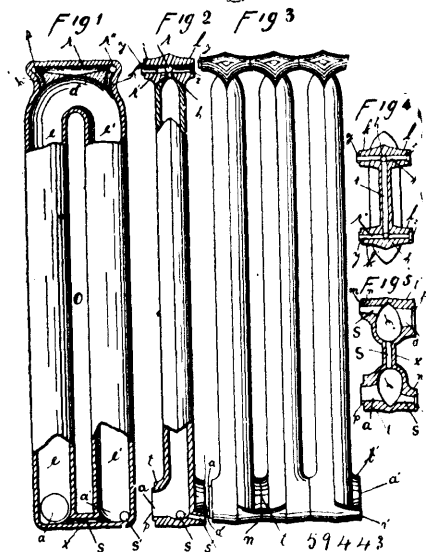


Ragland Momand, New York, State of New York, U.S.A., 26th March, 1898; 18 years. (Filed 31st December, 1897.)

Claim.—1st. The combination with a gas burner of the character described, of a main gas supply and a secondary gas supply, means for alternately maintaining one or the other of said gas supplies ignited, and means carried by the secondary gas supply for spreading the gas from the main gas supply, substantially as specified. 2nd. The combination with a gas burner of the character described, of a main gas supply, a secondary gas supply, a spreader for the main gas supply, a gas reservoir in communication with the secondary gas supply, and means for alternately maintaining one or the other of said gas supplies constantly ignited, substantially as specified. 3rd. The combination with a gas burner of the character described, of a main gas supply and a secondary gas supply, a recess at the upper end of the tube through which the secondary gas supply passes, in which recess the secondary gas supply is burned, mean for spreading the main gas supply, a gas reservoir in the secondary gas supply, and means for maintaining one or the other of said gas supplies constantly ignited, substantially as specified. 4th. The combination with a gas burner of the character described, of a main gas supply, a secondary gas supply, a gas reservoir located near the point of ignition of the secondary gas supply and acting as a spreader of the main gas supply, and means for alternately maintaining one

or the other of said gas supplies constantly ignited, substantially as specified. 5th. In a gas burner of the character described the combination of a nipple having a central opening, a coupling provided with two gas passages, a central tube communicating with the secondary gas passage, a gas reservoir located at the upper portion of said tube, a valve plug provided with a main and a secondary passage, so disposed relatively to each other that the secondary passage is closed when the main passage is open, and a projection on the coupling entering the opening formed in the nipple, substantially as specified. 6th. In a gas burner of the character described the combination of a nipple provided with an opening at its upper portion, a coupling provided with the inner and outer flanges, a gas mixing tube threaded into the outer flange, a smaller tube located within the gas mixing tube and threaded into the inner flange, a shoulder formed on the walls of the outer flange, an apertured disc resting on said shoulder, a gas reservoir located on the upper portion of the inner tube, a recessed burner on the upper portion of the gas reservoir, main and secondary gas passages communicating respectively with the outer and inner tubes and a valve controlling said passages, so as to alternately maintain one or the other of said passages open, substantially as specified. 7th. In a gas burner of the character described, the combination of a main gas supply, a secondary gas supply and a gas reservoir for said secondary supply, the said reservoir being adapted to serve as a spreader for the gas from the main supply, substantially as described. 8th. In a gas burner of the character described, the combination of a main gas supply, a secondary gas supply and a gas reservoir for said secondary supply, said reservoir being formed with a recess in which the secondary gas supply is burned, and adapted to serve as a spreader for the gas from the main supply, substantially as described. 9th. The combination with a gas burner of the character described of a main gas supply and a secondary gas supply, a gas reservoir for said secondary supply, said reservoir being provided with a recess through which passes the secondary gas supply and in which recess the secondary gas supply is burned, means for regulating the supply of gas to said recess, means for spreading the main gas supply, and means for maintaining one or the other of said gas supplies constantly ignited, substantially as described. 10th. In a gas burner of the character described, the combination of a gas supply, an adjustable coupling interposed between said gas supply and burner, said coupling being formed with a projection which extends into the opening of the gas supply, a main and secondary supply through said coupling to the burner and means for controlling said passages whereby the flow of gas is maintained alternately through either the main or secondary supply, substantially as described. 11th. In a gas burner of the character described, the combination of a main gas supply, a secondary gas supply and a gas reservoir for said secondary supply, said reservoir being formed with a recess in which the secondary gas is burned, substantially as described. 12th. In a gas burner, the combination of a gas supply passage a mixing tube adapted to be moved toward and away from the said gas supply passage, and a disc carried by the mixing tube, said disc being provided with a projection adapted to close the supply passage, and with a series of openings for the passage of gas to the mixing tube, substantially as described.

No. 59,443. Radiator. (Calorifere.)

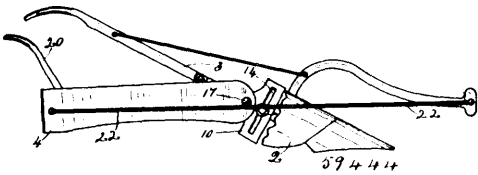


John Thomas Jackson and Fergus James Travers, both of Toronto, Ontario, Canada, 26th March, 1898; 6 years. (Filed 11th March, 1898.)

Claim.—1st. A radiator having loops formed like those of a coil and having two water-legs ending with right angle bends in com-

munication at the top only, substantially as set forth. 2nd. A radiator having loops coil-shaped, the water-legs thereof being in communication at the top only and having an air passage at right angles to the water-legs and transversely thereto, substantially as set forth. 3rd. A radiator having loops coil-shaped, the water-legs thereof being in communication at the top only, said loops having two passages vertical to the said water-legs and connected with the transverse passages at the top of the loops, substantially as set forth. 4th. A radiator having loops coil-shaped, the water-legs thereof being in communication at the top only, having two longitudinal passages at the two upper angles of the radiator loops and at right angles to the vertical and transverse passages and the water-legs, and when the several loops of the radiator are brought together the two longitudinal passages form two continuous parallel passages from one end of the radiator to the other and in circulation with the water-legs of the several loops thereof by means of the transverse and vertical passages therein, substantially as set forth. 5th. A coil-shaped radiator loop having the water-legs in communication at the top and having the bottom ends of the loop held rigid by a brace between them, substantially as set forth. 6th. A coil-shaped radiator loop having the bottom of the loops thereof held rigid by a brace between the said bottom ends and having a passage in said brace that is in circulation with both water-legs of the loop at the elbows or bends therein by means of passages at the opposite sides of the loops, and is used for drainage purposes when the radiator is used in a horizontal position, substantially as set forth. 7th. A coil-shaped radiator loop having right angle bends or elbows at their lower or feed and return ends of the water-legs with openings or passages joining with the right angle bends at the opposite side of the said elbows from the outlet and inlet ports, said openings or passages when two loops are brought together register to form one continuous passage between the loops for drainage purposes, substantially as set forth. 8th. In a radiator loop, the combination of the vertical passages arranged at opposite sides of the loops of longitudinal and transverse air passages in circulation with the water-legs, and the transverse and horizontal drainage passages in circulation with the same water-legs, substantially as set forth. 9th. A radiator, the loops of which have two independent passages at the bottom at opposite sides of the loops, and two at the top also at opposite sides of the loops, each of said passages being in circulation with the water-legs of the loops, substantially as set forth.

No. 59,444. Water Furrow Cleaner for Ploughs.
(Attache pour charrues.)



Joseph Albert McMicking, Esquesing, Ontario, Canada, 26th March, 1898; 6 years. (Filed 9th March, 1898.)

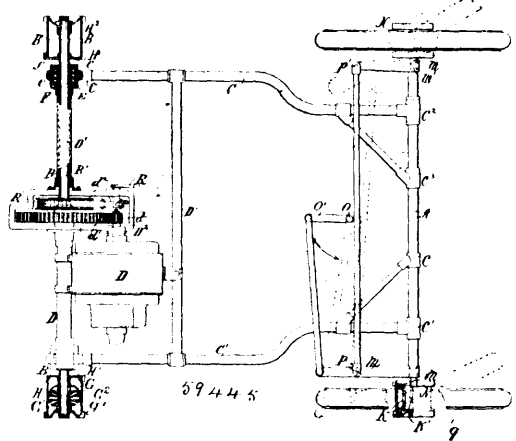
Claim.—1st. A water furrow cleaner of the character described plate at a consisting of a furrow board having its forward end pivoted to a suitable angle to the plough, and capable of vertical adjustment by means of said plate having a vertical slot to operate on a central bolt of an inner plate which is secured to the forward part of the right hand handle of a plough immediately in rear of the mould board thereof, a rear handle on said furrow, and a chain or stay fastened to the clevis of the plough and to the rear end of the furrow board, as described. 2nd. A water furrow cleaner of the character described consisting of a furrow board pivoted to a plate behind the mould board thereof, a slot in said plate to allow vertical adjustment of the same on a rigid bolt forming a part of an inner plate, which is secured to the forward part of the handle of the plough and at suitable angle thereto, horizontal corrugations on the face of each said plate, a rear handle on the furrow board, and a chain connecting rear end of furrow board and the clevis or forward part of the plough, as described. 3rd. A vertically inclined plate attached to a handle of a plough, at a suitable angle thereto, and behind the mould board thereof, an outer plate secured to said inner plate by means of a central bolt through a vertically inclined slot through the outer plate, the face of each plate having conforming corrugations, horizontally inclined, the forward end of a furrow board pivoted to the rear part of said outer plate and handle on rear end of the furrow board as described.

No. 59,445. Motor Vehicle. (Vehicule à moteur.)

Andrew L. Riker, New York City, U.S.A., 26th March, 1898; 6 years. (Filed 9th March, 1898.)

Claim.—1st. An approximately rectangular running gear frame for motor vehicles in which the two axles are capable of independent vertical play while being retained in substantially parallel vertical planes by means of the side-bars substantially as described. 2nd. A running-gear frame for motor vehicles comprising the front and rear axles and two side bars connecting them, the said bars

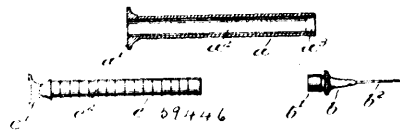
being each attached to the rear axle by a universal joint, and one of the bars being secured rigidly to the front axle while the other is



secured thereto by a swivelling connection, substantially as described. 3rd. An approximately rectangular running-gear frame, in which one of the side bars is connected rigidly to the front axle, while the other is connected thereto loosely, substantially as described. 4th. The combination of the rotating axle having a collar near each end, the relatively stationary casing surrounding the axle and having an enlargement at each end, the ball-bearings situated with the enlargements and against the outer side of the collars, and means for tightening the balls up against the collars, substantially as described. 5th. In a running-gear frame of a motor vehicle, the combination with the revolving shaft or axle, and the relatively stationary casing surrounding it and having a spherical seating near each end, of the side bars mounted to turn freely upon the seatings and connected at their forward ends to the fore axle, the forward portion of the casing being supported from the frame, substantially as described. 6th. The wheel having a compensating-gearing within its hub and upon one end of the continuous shaft or axle, substantially as described. 7th. The combination with two axles located one within the other, of a hub at one end of said axles enclosing a compensating-gearing, said gearing comprising a bevel-gear wheel secured on the inner axle, a bevel-gear wheel on the hub, and bevel-pinions mounted to rotate upon a support rigidly connected to the outer axle and arranged between the meshing with the bevel-gear wheels, substantially as described. 8th. The combination of two independently revolvable axles, one inside of the other, and both extending continuously from side to side of the vehicle, substantially as described. 9th. The combination of the brake-drum fast on the driving-shaft, the brake-drum mounted on the casing that surrounds the driving-shaft and driving gear, and the brake-band passed around the drum and secured to the lever, substantially as described. 10th. The hub having race-ways for ball bearings near each end, the balls in the race-ways, and the annular ball-retainers, in combination with the cylindrical box mounted upon the end of the axle by a vertical pivot, and an arm for turning the box and with it the hub, substantially as described. 11th. The combination with a hub and a cylindrical box upon which it is mounted to rotate freely, of the axle, a bolt passing through the axle and the box and pivoting the latter upon the former, the said bolt having a conical shoulder near its upper end, and two seats of ball-bearings, one between the said shoulder and the upper face of the axle, and the other between the lower face of the axle and the cylindrical box, substantially as described.

No. 59,446. Hypodermic Syringe.

(Seringue hypodermique.)

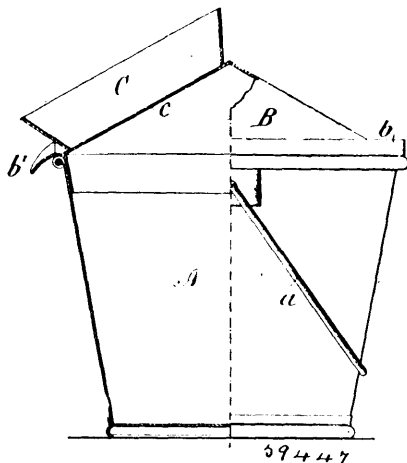


Stillman Williams Robinson and Henry Johnson Detmers, both of Columbus, Ohio, U.S.A., 26th March, 1898; 6 years. (Filed 7th March, 1898.)

Claim.—1st. A syringe, consisting of a barrel, a plunger, and a needle head, said three parts being formed of the same inorganic material, and each complete in one piece, said barrel having a smooth interior from one end to the other, said head having a smooth exterior at its inner end and seating within the end of the barrel, said smooth surfaces of the head and barrel being in immediate contact with each other throughout their entire closing areas, said plunger being a perfect cylinder from end to end, and said barrel fitting in direct contact on said plunger throughout their operative areas, sub-

stantially as described. 2nd. A hypodermic syringe, consisting of and complete in three parts, viz:—a barrel, a plunger, and a combined needle and needle head, said barrel, plunger and needle head being formed of rigid metal and each complete in one piece, said barrel having a smooth interior from one end to the other, said head having a smooth exterior at its inner end, and seating within the end of the barrel, said smooth surfaces of the head and barrel being in immediate contact with each other throughout their entire closing areas, said needle being secured within said head by a microbe-proof joint, said plunger being a perfect cylinder from end to end, said barrel fitting in direct contact on said plunger throughout their operative areas, to form a liquid-proof joint throughout their contacting surfaces, the operative area of the barrel extending from its rear end to the forward end of the plunger, and said plunger having a plurality of hair-like transverse superficial grooves, substantially as described. 3rd. The combination of a metallic barrel having a uniform bore throughout the operating portions of its length but formed slightly conical at the needle end to receive a needle-head which is correspondingly tapered and fitted to said barrel, a perforated needle extending through said head and joined thereto so that the parts are substantially integral, and a metallic plunger of uniform diameter throughout its length fitted to said barrel, without the aid of packing material, said plunger being provided with fine peripheral grooves adapted to form the double purpose of packing and a graduated scale, substantially as and for the purpose specified.

No. 59,447. Milk Pail. (Seau à lait.)



Ellen Silver, Huntsville, Ontario, Canada, 26th March, 1898; 6 years. (Filed 16th February, 1898.)

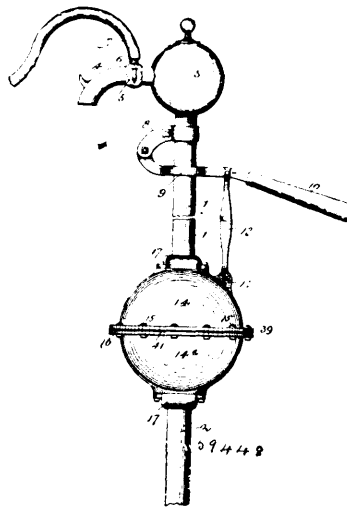
Claim.—1st. A milking-pail, provided with a cover and a milk-hopper thereon having a strainer in communication with the interior of the pail, substantially as set forth. 2nd. A milking-pail, provided with a cover having a straining milk-hopper, said hopper being located at one side of the centre of the cover and communicating with the interior of the pail, substantially as and for the purpose set forth. 3rd. In a milk-pail, the combination with the pail proper of a conical cover having a peripheral standing flange and a spout leading therefrom, and the milking-hopper having a strainer in connection with said cover, substantially as and for the purposes specified. 4th. In a milk-pail, the combination with the pail of the cover having the milk-hopper, the strainer and the internal automatically-operating flap or valve, substantially as and for the purposes specified. 5th. In a milk-pail, the combination with the pail proper of the conical cover having the peripheral standing flange and spout leading therefrom, the milk-hopper having the strainer and the automatically-operating flap or valve in connection with said cover, substantially as set forth.

No. 59,448. Pump. (Pompe.)

Nestor Albin Wahtola, Ironwood, Michigan, U.S.A., 26th March, 1898; 6 years. (Filed 10th March, 1898.)

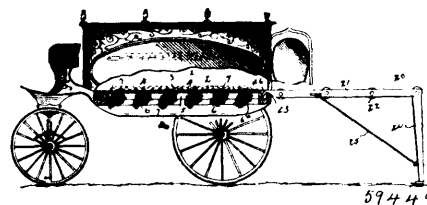
Claim.—1st. In a diaphragm pump, the combination with the upper and lower stationary pump tubes, the partition comprising the upper and lower sections secured respectively to said pump tubes and the intermediate section connected therewith, and said sections provided with ports, passages and valves, substantially as described, of the vertically-movable semi-cylindrical cups, through which said pump tubes pass, provided with angular flanges at their adjoining ends, the flexible diaphragm of greater diameter than said cups clamped between said flanges and said upper and intermediate sections, and means for reciprocating said cups on the tubes, substantially as set forth. 2nd. In a diaphragm pump of the character described, the combination with the upper and lower pump tubes, the vertically-reciprocating cups or sections, and the diaphragm, of the sectional partition comprising the lower section secured to the lower pump barrel, having two ports or openings, 19

and 20 therein, the intermediate section having an angular passage 24 with which the lower pump tube communicates, a port 25, a port



26, a passage 27 on its upper side, a port 19^a communicating with port 19, a passage 29, port 30, port 31 communicating with an angular passage 32 in the upper side, and the upper section having ports 37 and 38 and the valves 28, 34, 36 and 39, substantially as described.

No. 59,449. Hears. (Corbillard.)



Newel Carpenter, White Creek, Wisconsin, U.S.A., 26th March, 1898; 6 years. (Filed 9th March, 1898.)

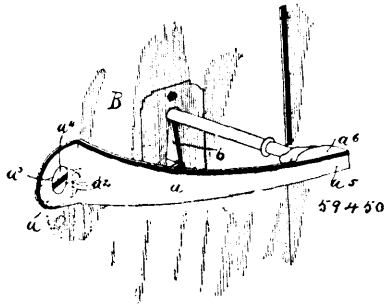
Claim.—1st. The combination with a hearse, of a series of toothed rollers, journaled below the floor thereof, means for imparting corresponding peripheral speed to all of the rollers of the series, and means for locking said rollers against rotation, substantially as described. 2nd. The combination with a hearse having a slotted floor of a series of toothed rollers journaled within the hearse to have their working surfaces protrude above the slotted floor, a counter-shaft geared to all of said rollers, and a locking device to restrain the counter-shaft and the rollers against rotation, substantially as described. 3rd. The combination with a hearse having its floor provided with a series of transverse slots, of a supporting frame fixed within the hearse below the slotted floor thereof, a series of rollers journaled in said frame and arranged to have their toothed working surfaces protrude through the slots in said floor, a counter-shaft geared to the shafts of all the rollers, a driving shaft carrying one of said rollers, geared to the counter shaft and provided with a detachable crank, and a locking device associated with the driving-shaft, substantially as described. 4th. The combination with a hearse having a slotted floor of a driving-shaft journaled beneath said floor and carrying a toothed roller, a series of rollers, a counter-shaft geared to the driving-shaft and geared to said rollers, a radially-notched disc fastened to the driving-shaft, and a spring controlled pawl to engage with said notched disc, substantially as described. 5th. The combination with a hearse, of a supporting-stand adapted to have one end thereof connected detachably to the hearse and provided with a series of idle-rolls, and foldable legs attached to said stand, substantially as described. 5th. The combination with a hearse and a series of rotatable toothed rollers journaled therein, of a supporting-stand connected detachably to the hearse to have its series of idle-rolls occupy substantially the same horizontal frame as the toothed bearing rollers, foldable legs attached to said stand frame, and suitable stays connected with the stand frame and the foldable legs thereof, substantially as described.

No. 59,450. Key Fastener. (Attache de clé.)

Elie Benoit, St. Cesaire, Quebec, Canada, 26th March, 1898; 6 years. (Filed 10th January, 1898.)

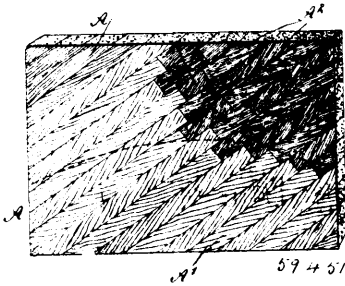
Claim.—1st. A key fastener, having one end adapted to be attached to the door and having its opposite end adapted to embrace the free end of the key. 2nd. A key fastener, having a curved

main portion, one end of which is adapted to be pivotally secured to a door, the opposite end being provided with inwardly extending



flanges or lips adapted to embrace the free end of a key. 3rd. A fastener, formed of a single piece of resilient material, having a curved main portion, one end of which is adapted to be pivotally secured to a door, the opposite end being provided with inwardly extending flanges or lips adapted to embrace the free end of a key. 4th. A key fastener, formed of a single piece of resilient material, having a curved main portion, one end of which is bent at an angle to said main portion, said angular portion being adapted to be pivotally secured to a door, said main portion having its free end provided with inwardly extending flanges or lips, said flanges or lips, and the end of said main portion being adapted to embrace the free end of a key.

No. 59,451. Sounding Board. (Table d'harmonie.)



James Casey Livingston, Little Falls, New York, U.S.A., 26th March, 1898; 6 years. (Filed 26th February, 1898.)

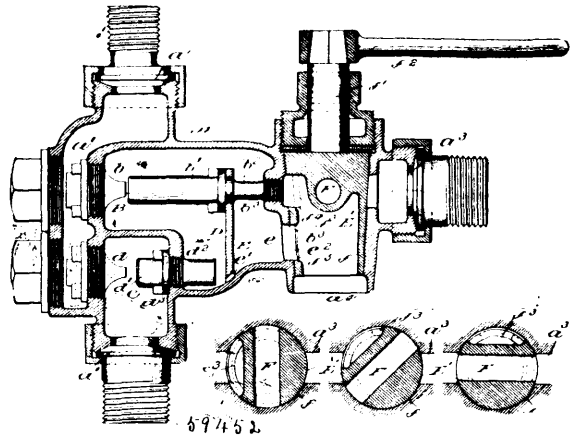
Claim.—1st. As a new article of manufacture, a sounding board for musical instruments, having its treble formed on hard wood, and its bass of soft wood, as set forth. 2nd. As a new article of manufacture, a sounding board for musical instruments, provided with strips, each formed of a hard and a soft wood, the hard wood being at the treble end of the strip and the soft wood at the bass end thereof, as set forth. 3rd. As a new article of manufacture a sounding board for musical instruments, comprising a plurality of diagonally arranged strips, some of which are made of a hard and a soft wood, the hard wood of the said strips being at the treble ends and the soft wood at the bass ends, as specified. 4th. As a new article of manufacture a sounding board for musical instruments, comprising a plurality of diagonally arranged strips, some of the strips being formed of a hard and soft wood, the soft wood being at the bass ends of the strips and the hard wood at the treble ends and formed of a plurality of sections, as set forth. 5th. As a new article of manufacture, a sounding board with the line of joints running from the left-hand lower corner to the right-hand upper corner, and having its treble made of hard-grained dense strips of wood, substantially as shown and described. 6th. A sounding board formed of strips of wood secured together at their sides and arranged diagonally, some of the strips being made in sections joined endwise and of a different grain and density, substantially as shown and described. 7th. A sounding board formed of strips of wood secured together at their sides and arranged diagonally, some of the strips being made in sections joined endwise and of a different grain and density, the sections having a double bevel lap joint, substantially as shown and described.

No. 59,452. Steam Injector. (Injecteur à vapeur.)

Francis Sticker, New York City, U.S.A., 26th March, 1898; (Filed 9th March, 1898.)

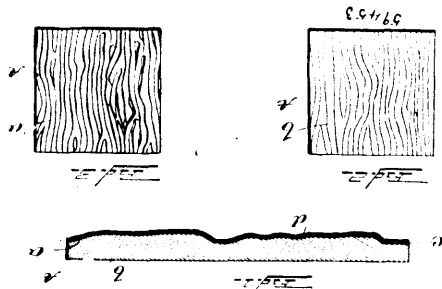
Claim.—1st. A lifting and forcing injector having an auxiliary overflow in line with the lifter, a primary overflow for the forcer, and a third or supplemental overflow for the lifter, and means for positively closing said overflows as the column of steam and water is established, substantially as set forth. 2nd. A lifting and forcing injector having an auxiliary overflow in line with the lifter, a primary overflow for the forcer, and a third or supplemental overflow for the

lifter, and means for first closing said auxiliary and supplemental overflows, and then said primary overflow as the column of steam



and water is established, as set forth. 3rd. A lifting and forcing injector having an auxiliary overflow in line with the lifter, a primary overflow for the forcer, and a boiler-outlet, and means for first closing said auxiliary overflow, and then said primary overflow, and then opening up communication between said forcer and boiler-outlet, the later being closed while the overflows are open, as set forth. 4th. A lifting and forcing injector, having an auxiliary overflow in line with the lifter, a primary overflow for the forcer, and a third or supplemental overflow for the lifter, and a hollow cock for first closing said auxiliary and supplemental overflows, and then said primary overflow as the column of steam and water is established, substantially as set forth. 5th. A lifting and forcing injector having an auxiliary overflow in line with the lifter, a primary overflow for the forcer, and a boiler-outlet in line with said forcer, and a hollow cock open at one end and having separate ports, designed to register with said overflows and having a transverse port for connecting said forcer with said boiler-outlet after said overflows have been closed, substantially as set forth. 6th. A lifting and forcing injector having a primary overflow for the forcer, and an auxiliary overflow for the lifter, a wall in the discharge chamber formed with an opening in line with the lifter and auxiliary overflow, and means for positively closing said overflows, substantially as set forth. 7th. A lifting and forcing injector having a primary overflow for the forcer, and an auxiliary overflow for the lifter, a wall in the discharge chamber extending to near the top thereof, and having an opening in line with the lifter and auxiliary overflow, and means for positively closing said overflows, substantially as set forth. 8th. A lifting and forcing injector having a primary overflow for the forcer, and an auxiliary overflow for the lifter, a wall in the discharge chamber formed with an opening in line with the lifter and auxiliary overflow, and a cock having ports designed to register with said overflows and also designed to control the passage of the column of steam and water after said overflows are closed substantially as set forth. 9th. A lifting and forcing injector having a steam chamber common to both the lifter and forcer, a primary overflow for the latter, an auxiliary overflow for the lifter, in direct line therewith, and a supplemental overflow for said lifter, and a hollow cock having ports designed to register with said primary and auxiliary overflows, whereby in starting the injector the said primary and auxiliary overflows will have only atmospheric pressure to overcome, the initial overflow from the lifter reaching the atmosphere independent of the overflow of the forcer, substantially as set forth. 10th. A lifting and forcing injector having a steam chamber common to both the lifter and forcer, a primary overflow for the latter, and an auxiliary overflow for the lifter, in direct line therewith, a wall in the discharge chamber having an opening therein in line with said lifter and the auxiliary overflow, and a hollow cock having ports designed to register with said overflows, whereby in starting the injector the overflows will have only atmospheric pressure to overcome, the overflow from the lifter reaching the atmosphere independent of the overflow of the forcer, substantially as set forth. 11th. A lifting and forcing injector having a steam chamber common to both the lifter and forcer, a boiler outlet, primary and auxiliary overflows for said forcer and lifter respectively, a wall intermediate of said lifter and auxiliary overflow having an opening therein, and a hollow cock open at one end and having separate ports for said overflows and a transverse port designed to connect said forcer with said boiler-outlet, substantially as set forth. 12th. A lifting and forcing injector having primary and auxiliary overflows direct to the atmosphere in starting the injector, a wall in the discharge chamber extending to near the top thereof and forming a support for the combining tube of the forcer, said wall having an opening in its lower portion in line with said lifter and auxiliary overflow, and a hollow cock having separate ports for said overflows, substantially as set forth.

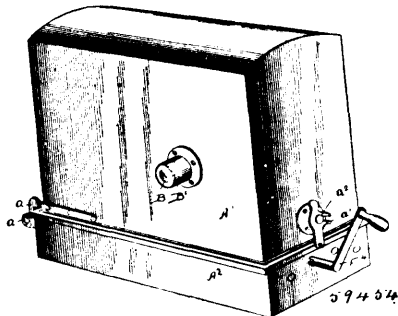
No. 59,453. Method of Ornamenting Glass.
(Méthode d'ornementation du verre.)



Edgar John Lutwyche, Chicago, Illinois, U.S.A., 26th March, 1898; 6 years. (Filed 2nd March, 1898.)

Claim.—1st. A tile, panel, mosaic or other article of tinted or coloured transparent material having an irregular surface on one side and one side coated with a precipitate from nitrate of silver. 2nd. A tile, panel, mosaic or other article of tinted or coloured transparent material having an irregular surface on one side extending throughout the length and width of the tile and one side covered with a brilliant material. 3rd. A tile, panel, mosaic or other article of tinted or coloured glass having an irregular surface on both sides and one of said sides coated with a brilliant material. 4th. The method of ornamenting glass, which consists in tinting or colouring molten glass, forming tile, panels, mosaics or other articles by moulding the article with an irregular surface and depositing silver in solution on one side of the article.

No. 59,454. Apparatus for Taking, Enlarging and Projecting Pictures. (Appareil pour prendre et agrandir les portraits.)

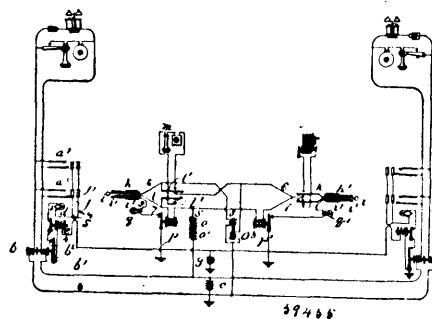


The Chicago Recording Scale Company, assignee of Nicolay Nelson, Waukegan, Illinois, U.S.A., 26th March, 1898; 6 years. (Filed 22nd November, 1897.)

Claim.—1st. In an apparatus for taking or enlarging and projecting successive pictures or moving objects, the combination with a lens and an intermittently operating shutter, of an intermittently rotating and rectilinear moving plate, film or picture holder, substantially as specified. 2nd. In a successive picture taking or projecting apparatus, a rectilinear moving and intermittently rotating holder for the picture plate or film, whereby successive pictures on its surface are successively exposed in a continuous spiral, substantially as specified. 3rd. A flat plate or film having successive pictures of a moving object on its surface in a continual spiral row or path, substantially as specified, including a rotary and rectilinear moving holder for said plate. 4th. The combination with a reciprocating slide or carriage, of an intermittently rotating film, plate or picture holder mounted thereon, substantially as specified. 5th. The combination with a reciprocating slide or carriage of an intermittently rotating film, plate or picture holder mounted thereon, a lens and an intermittently operated shutter, substantially as specified. 6th. The combination with a lens of a shutter, a rectilinear moving slide, and an intermittently rotating holder for the plate or film mounted in said slide, substantially as specified. 7th. The combination with a lens of a shutter, a rectilinear moving slide, and an intermittently rotating holder for the plate or film mounted in said slide, a feed screw for operating the slide, substantially as specified. 8th. The combination with a lens of a shutter, a rectilinear moving slide, and an intermittently rotating holder for the plate or film mounted in said slide, a feed screw for operating the slide, and mechanism for intermittently rotating said holder, substantially as specified. 9th. The combination with a lens of a shutter, a rectilinear moving slide, an intermittently rotating holder

for the plate or film mounted in said slide, a feed screw for operating the slide, mechanism for intermittently rotating said holder, and means for intermittently operating said shutter, substantially as specified. 10th. The combination with a lens of a shutter, a feed screw, a rotary ring plate holder provided with teeth on its periphery, a feed slide, and a worm cam engaging said teeth on said holder, substantially as specified. 11th. The combination with a feed slide of a worm cam and an intermittently rotating plate holder having teeth engaging said worm cam, substantially as specified. 12th. The combination with a feed slide having a ring to receive a rotating ring plate holder, of a rotating ring plate holder, means for operating said feed slide, and means for intermittently rotating said holder, substantially as specified. 13th. The combination with a feed slide having a ring to receive a ring shaped holder, a rotating ring shaped holder provided with teeth on its periphery, a feed screw, and a worm cam for intermittently rotating the holder, substantially as specified. 14th. The combination with a two part opening and closing case, of a lens, a screw, a shutter, a feed slide, guides for said slide, a screw for operating said slide, a stationary ring on the slide, a rotary ring shaped holder, a worm cam, and a condenser in the back side of said case, substantially as specified. 15th. The combination with a case of a lens, a shutter, a condenser in the back side of said case, and an intermittently rotating and rectilinear moving holder whereby the same apparatus may be used both for taking and enlarging and projecting successive pictures of moving objects, substantially as specified. 17th. The combination with a case of a lens, a shutter, a slide or carriage, a rotary holder mounted thereon, mechanism for intermittently rotating said holder, and means for feeding said slide in both directions as the holder rotates to enable the same apparatus to present the same pictures in their direct or reverse order, substantially as specified.

No. 59,455. Telephone Switch Board.
(Appareil d'échange de téléphone.)



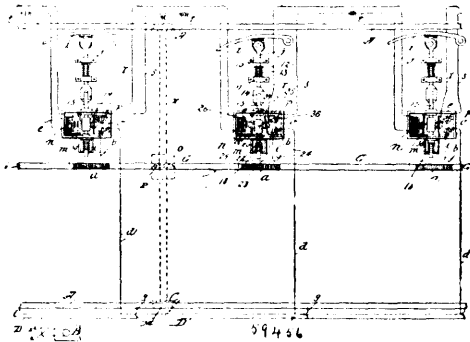
The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Charles Ezra Scribner, Chicago, Illinois, U.S.A., 26th March, 1898; 6 years. (Filed 20th October, 1897.)

Claim.—1st. The combination with a telephone-line, a source of current in the line, and means at the sub-station for determining the flow of current consequent on the use of the telephone, of a line-signal associated with the line in the central office and controlled by currents in the line, a relay adapted to break the circuit through the said signal when excited, a local circuit including said relay, and means for closing the said local circuit in the act of making connection with the line, whereby the line-signal is effaced when connection is made with the line, as described. 2nd. The combination with a telephone-line and means for producing current therein during the use of the sub-station-telephone, of a relay in the line-circuit at a central office, a subsidiary line-signal in a local circuit controlled by the relay, an electro-magnet controlling switch-contacts adapted to interrupt the current through the subsidiary signal when excited, a circuit including the said magnet together with a source of current, and switch-contacts controlling the last mentioned circuit closed together in the act of making connection with the line, substantially as described. 3rd. The combination with a telephone-line provided with means for creating current in the line during the use of the telephone, spring-jacks for making connection with the line, a relay included in the line at the central office, a subsidiary line-signal in a local circuit controlled by the relay, a magnet controlling switch-contacts adapted to interrupt the current through the subsidiary signal when the magnet is excited, a local circuit including the magnet, said local circuit including a source of current and being interrupted at normally-separated contact-terminals in the spring jacks, one of said contacts in each spring-jack being a test-ring, and means for connecting the said contact-pieces together when a plug is inserted into any spring-jack, whereby the line-signal is effaced and the electrical condition of the test-rings is altered when a plug is inserted into a spring-jack, as described. 4th. The combination with a telephone-line and means for producing current therein during the use of the telephone, of a relay in the

line and a subsidiary signal controlled thereby, an electro-magnet controlling switch-contacts adapted to interrupt the current through the subsidiary signal, a local circuit including the said electro-magnet together with a source of current normally interrupted at separated contact-pieces in each of the spring-jacks, a plug adapted for insertion into the spring-jack and constructed to connect together the said contact-pieces and the plug-circuit thereof, a conductor terminating in that contact-piece of the plug which registers with the said terminals of the local circuit adapted to be brought into parallel with the said electro-magnet when the plug is in the jack, a supervisory signal in the said conductor, and a relay in the plug-circuit controlling the current through the said supervisory signal in response to currents in the line-circuit, whereby the subsidiary line-signal is effaced, the condition of the test-rings is altered, and current is provided for exciting the supervisory signal, when the plug is inserted into a spring-jack, as described. 5th. The combination with a telephone-line, a line-signal associated therewith, means for causing the display of the line-signal, and spring-jacks for the line each having two normally-separated local contact-pieces, of an electro-magnet adapted to efface the line-signal in a circuit connected with one of said local contact-pieces in each spring-jack, a source of current connected to the other contact-piece in each spring-jack, a plug for making connection with the line, a contact-piece in the plug adapted to make connection with both of said local contact-pieces in the spring-jack, a circuit terminating in the said plug-contact, a lamp-signal in the last-mentioned circuit, and means for controlling the signal, whereby the said magnet is excited and current is provided for lighting the lamp when the plug is inserted into a spring-jack, substantially as described.

No. 59,456. Electric Railway.

(Chemin de fer électrique.)

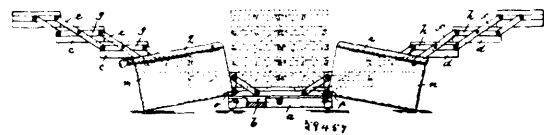


Louis Edward Walkins and Francke W. Dickinson, both of Springfield, Massachusetts, U.S.A., 26th March, 1898; 6 years. (Filed 19th October, 1897.)

Claim.—1st. In an electric-railway system, in combination, the usual track-rail and third rail section separated at intervals by insulating material, a generator or source of electrical energy and a line-wire, contact *b c* provided to correspond to each third-rail section and a switch to unite them, a wire *d* running from the feed-wire to the one contact, and a wire *f* running from the contact *c* to the adjacent third-rail section, a second set of contacts *o p*, and a switch for uniting them, an electro-magnet in proximity to the two pairs of contacts for each section and an armature therefor, electric wires running from the contacts *o p* to the electro-magnet adjacent the group of contacts for the section next in advance, comprising in their course a battery or the like, a movable device provided for each third-rail section actuated by the wheel or shoe of a passing car, and in turn operating to set the switches against the contacts *b, c* and *o p*, the armature for the adjacent electromagnet having a locking engagement with said switch-actuating movable part to hold the switches closed until released by the circuit through the electromagnet as the car passes onto an advanced third-rail section, substantially as described. 2nd. In an electric railway system in combination, the usual car-track rails, and separate third-rail sections, a generator or source of electrical energy, a line-wire, and a return-wire connecting the line back to the generator, contacts *b, c* provided to correspond to each third-rail section and a switch to unite them, wires *d* running from the feed-wire to one contact and a wire *f* running from the contact *c* to the adjacent third-rail section, a second set of contacts *o, p*, and a switch for uniting them, an electro-magnet in proximity to the two pairs of contacts for each section and an armature therefor, electric wires running from the contacts *o, p* to the electro-magnet adjacent the group of contacts for the section next in advance, comprising in their course a battery or the like, and return-conductors connecting the car-track rails with first-named return-wire, a movable device provided at each third-rail section actuated by the wheel of a passing car, and in turn operating to set the switches against the contacts *b, c* and *o, p*, the armature for the adjacent electro-magnet having a locking engagement with said switch-actuating movable part to hold the switches closed until re-

leased by the circuit through the electro-magnet as the car passes onto an advanced third-rail section, substantially as described. 3rd. In an electric railway system in combination, the usual car-track rails, and a series of third-rail sections, separated by a length of insulating material, a generator or source of electrical energy, and a line-wire, contacts *b, c* provided to correspond to each third-rail section and a switch to unite them, wires *d* running from the feed-wire to the one said contact and a wire *f* running from the other said contact to the adjacent third-rail section, an adjacent second set of contacts *o p*, for each section and a switch for uniting them, an electro-magnet in proximity to the two pairs of contacts for each section, and an armature therefor, electric wires running from the contacts *o, p* to the electro-magnet adjacent the group of contacts for the section next in advance, comprising in their course a battery or the like, a movable device provided at each section opposite said length of insulating material actuated by the wheel of a passing car, and in turn operating to set the switches against the contacts *b c* and *o p*, the armature for the adjacent electro-magnet having a locking engagement with said switch-actuating movable part to hold the switches closed until released by the circuit through the electro-magnet as the car passes onto an advanced third-rail section, and all whereby said switches may be operated and released at times when the car-motor is in connection with said length of insulating material, for the purpose set forth. 4th. In an electric-switch mechanism, in combination, a part movably mounted and adapted to be operated by a passing object as a wheel of a car, two pairs of electric terminals or contacts for different circuits, and two switches movable to connect and disconnect the contacts of both pairs, a switch-operating part receiving movement from said wheel-operated part, and connections between it and both said switches, actuated by said switch-operating part, whereby both switches are simultaneously operated, an armature arranged to normally engage said switch-operating part, and an electro-magnet adjacent the armature, substantially as described. 5th. In an electric switch, in combination, a part movably mounted and adapted to be operated by a passing object as a wheel of a car having a retracting-spring therefor, two pairs of electric terminals or contacts for different circuits, and two switches movable to connect and disconnect the contacts of both pairs each having a crank-arm, a part movably mounted and having a movement in one direction by said wheel-operated part and having rack-teeth, a pinion engaged by said rack-teeth, arms carried by said pinion, and connections between said arms and the switch-arm whereby both switches are simultaneously operated, an armature adapted to engage said rack-provided part, an electro-magnet adjacent thereto and a retracting-spring for said rack-provided part, substantially as described. 6th. In a switch mechanism in combination, the lever *i* pivotally mounted adjacent a track and adapted to be moved by a passing car, the thrust-rod *j* connected to said lever having a retracting-spring, a second thrust-rod having an engagement with the first rod whereby it is moved thereby in one direction but whereby said first thrust-rod may have its return movement without moving the second rod, said second rod having the series of rack-teeth and the series of ratchet-teeth and the retracting-spring, the two pairs of contacts or terminals for two circuits, switches applied thereto and movable to connect and disconnect said contacts, a pinion meshing said rack-teeth and connections between said pinion and said switches whereby the latter are simultaneously operated, the armature having a catch engagement with said ratchet-teeth and an electro-magnet adjacent the armature, substantially as described.

No. 59,457. Folding Sample Case. (Caisse pliante.)

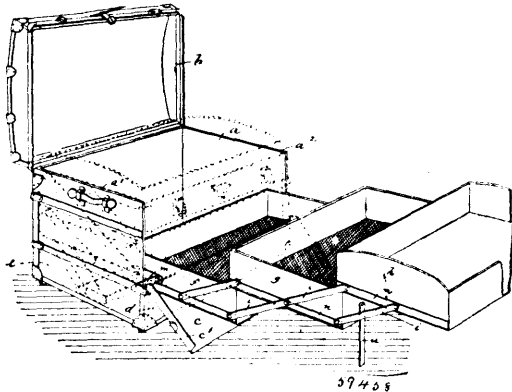


Charles H. Mersereau, Alfred Gartner, Fred W. Wentworth, and William L. Platt, all of Paterson, New Jersey, U.S.A., 26th March, 1898; 6 years. (Filed 21st October, 1897.)

Claim.—1st. A folding sample case consisting of a base compartment, a series of compartments carried by said base compartment and pivotally connected with and between each other, and a cover comprising two sections or halves pivotally connected with said base compartment, and adapted to support their respective series of compartments, when opened, substantially as and for the purposes described. 2nd. A folding sample case consisting of a base compartment, a tray removably arranged in said base compartment, series of compartments carried by said tray and pivotally connected therewith and between each other, and a cover comprising two halves or sections pivotally connected with the base compartment and adapted to support their respective series of compartments, when opened, substantially as and for the purposes described. 3rd. A folding sample case consisting of a base compartment, a tray removably arranged in said base compartment, series of compartments carried by said tray and pivotally connected therewith and between each other, a cover comprising two halves or sections pivotally connected with the base compartment and adapted to support their respective

series of compartments, when opened, and a catch or lock carried by the base compartment and on each side thereof and adapted to engage the said cover, substantially as and for the purposes described. 4th. A folding sample case consisting of a base compartment, a tray removably arranged in said base compartment, two series of separate compartments of uniform size, but of the area of said tray, arranged on said tray and on each side of the centre thereof and pivotally connected therewith, means for pivotally connecting the separate compartments of each series, and a cover pivotally connected with the base compartment and adapted to support said series of compartments, when opened, substantially as and for the purposes described. 5th. A folding sample case consisting of a base compartment, a tray removably arranged in said base compartment, two series of separate compartments of uniform size, but of half the area of the tray, arranged on said tray and on each side of the centre thereof and pivotally connected therewith, means for pivotally connecting the separate compartments of each series, a cover comprising two halves or sections pivotally connected with the base compartment and adapted to support their respective series of compartments, when opened, and a catch or lock carried by the base compartment and on each side thereof and adapted to engage the said cover, substantially as and for the purposes described.

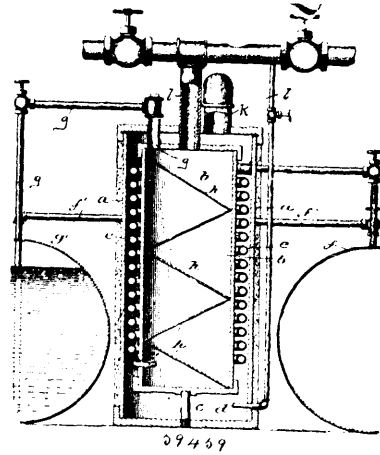
No. 59,458. Trunk. (Coffre.)



Charles H. Mersereau, Alfred Gartner, Fred W. Wentworth and William L. Platt, all of Paterson, New Jersey, U.S.A., 26th March, 1898; 6 years. (Filed 21st October, 1897.)

Claim—1st. A trunk consisting of the body having the upper portion of the front hinged to the lower portion thereof, of a base compartment removably arranged in said trunk, a series of separate tills or compartments carried by said base compartment and pivotally connected with and between each other, and a series of links connecting the said base compartment with the lower-most of said series of tills, substantially as and for the purposes described. 2nd. A trunk consisting of the body having the top portion of its front hinged to the lower portion thereof, a base compartment removably arranged in said trunk and of a height substantially equal to the height of the stationary portion of the front of said trunk, a series of tills or compartments carried by said base compartment, means for pivotally connecting said series of tills or compartments with and between each other, and means for pivotally connecting the lower-most of said series of compartments with the base compartment, substantially as and for the purposes described. 3rd. A trunk consisting of a body, a base compartment removably arranged in said body and provided in its sides with one or more elongated vertical slots, a series of separate tills or compartments in said trunk and above the base compartment and pivotally connected with and between each other, and one or more links pivotally connected with their upper portions to the lower-most compartment of said series and having their lower ends slidingly arranged in said elongated slots in the base compartment, substantially as and for the purposes described. 4th. A trunk consisting of the body having the upper portion of the front hinged to the lower portion thereof, of a base compartment removably arranged in said trunk, a series of separate tills or compartments carried by said base compartment and pivotally connected with and between each other, a series of links connecting the said base compartments with the lower-most of said series of tills, and means carried by one of said series of compartments or tills for supporting said series when opened, substantially as and for the purposes described. 5th. A trunk consisting of the body, a base compartment removably arranged in said body and provided in its sides with one or more elongated vertical slots, a series of separate tills or compartment in said trunk and above the base compartment and pivotally connected with and between each other, one or more links pivotally connected with their upper portions to the lower-most compartment of said series and having their lower ends slidingly arranged in said elongated slots in the base compartment, and means carried by one of said series of compartments or tills for supporting said series when opened, substantially as and for the purposes described.

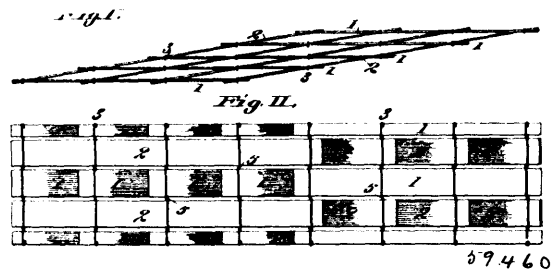
No. 59,459. Gas Generator. (Générateur à gaz.)



John A. McGowan, Maywood, and William R. Armstrong, Chicago, all of Illinois, U.S.A., 26th March, 1898; 6 years. (Filed 15th February, 1898.)

Claim—1st. The combination with a furnace having a combustion chamber, of a generating chamber above the same, superheating coils opening into said generating chamber and subjected to the heat of said combustion chamber, an oil inlet at the upper end of the generating chamber and heating surfaces in the interior of said generating chamber, substantially as described. 2nd. The combination with a furnace having a combustion chamber, of a generating chamber above the combustion chamber, superheating coils surrounding the generating chamber and opening into the same, a flue leading from the said furnace, an oil inlet at the upper end of the generating chamber and heating surfaces in the interior of said generating chamber, substantially as described. 3rd. The combination with a furnace having a combustion chamber, of a cylindrical generating chamber above the combustion chamber, superheating coils surrounding the generating chamber and opening into the same, an oil inlet at the upper end of the generating chamber, and a series of oblique plates within said generating chamber, upon which the oil is fed, substantially as described.

No. 59,460. Folding Cell Frame for Packing Boxes. (Cadre pliant pour cellules de boîtes d'emballage.)



Frederick Gottlieb Schenholer, assignee of Benjamin Koehs, both of St. Louis, Missouri, U.S.A., 26th March, 1898; 6 years. (Filed 7th March, 1898.)

Claim—A folding cell-frame for packing boxes comprising crossed thin strips set edge up and binding wires or cords embracing or binding and secured to the strips and twisted together between the strips so as to provide loops in which the strips are held at their intersections, enabling the strips to hold lengthwise, the strips of each tier lying alongside each other, substantially as described.

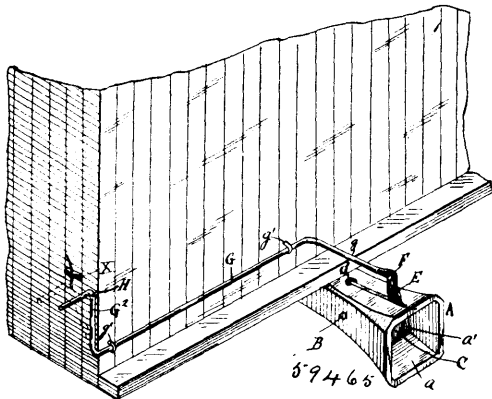
No. 59,461. Belt Fastener. (Attache de courroie.)

Charles C. Douglass and Charles E. Hayes, both of Philadelphia, Pennsylvania, U.S.A., 26th March, 1898; 6 years. (Filed 15th February, 1898.)

Claim—1st. A belt-fastener, formed of a single piece of sheet metal, the same consisting of an elongated strip having the plurality of pointed projections extending outwardly from its opposite longitudinal edges, and alternately long and short and all bent at right angles to form points to pass through the belt and be clenched on the opposite side thereof, the projections on one side of the body staggered with relation to those at the opposite side, so that each projection pulls on two opposite projections in accordance with the lacing principle, substantially as described. 2nd. The belt-fastener, composed of a metal strip having the plurality of tapered pointed projections extending outwardly and all turned down to form

sides of the seat frame, substantially as and for the purpose hereinbefore specified. 2nd. The combination of the board A and the block B., resting upon the junction of the springs secured to the opposite sides of the seat frame, substantially as and for the purpose hereinbefore set forth. 3rd. In a spring-seat the block B., having a curved under-surface with a longitudinal groove *a* attached to the board A., and resting at the part or point *b* upon the junction *c* of the spiral springs CC, substantially as and for the purpose hereinbefore set forth.

No. 59,465. Car Coupler. (Attelage de chars.)



John W. Irvin and William Harvey Byerly, both of Franklin, Nebraska, U.S.A., 26th March, 1898; 6 years. (Filed 12th March, 1898.)

Claim.—The improved car-coupling, herein described, comprising in combination, the draw-head having its mouth provided with rearwardly extending rectangular horizontally-disposed recess, a horizontal pin to the rear of this recess, the lower face of the recess being provided with a concavity, a lashing-hook pivoted on said pin and having a depending curved portion fitting said cavity, with a cam-faced front end with a curved hook to the rear of the same and upon its upper face in front of its pivot provided with an eye, a spring seated in a vertical socket in the draw-head to the rear of said horizontal pin and bearing against a downward extension on the rear end of the arch, a link pivotally connected with the said eye, a shaft extending parallel with the front end of the car and mounted in suitable bearings thereon, provided with a longitudinal arm integral therewith, and pivotally connected with the upper end of said link, the said shaft having slight endwise play in its bearings and its outer end terminating in a crank-handle, and a lateral pin on the side of the car, with which said crank-handle is adapted to be engaged and from which it is disengaged by endwise movement of the shaft, all substantially as herein shown and described.

No. 59,466. Insecticide for Sheep.

(*Insecticide pour moutons.*)

The Tobacco Warehousing and Trading Company, Danville, Virginia, U.S.A., assignee of James Arthur Palethorpe, Liverpool, England, 26th March, 1898; 6 years. (Filed 26th July, 1897.)

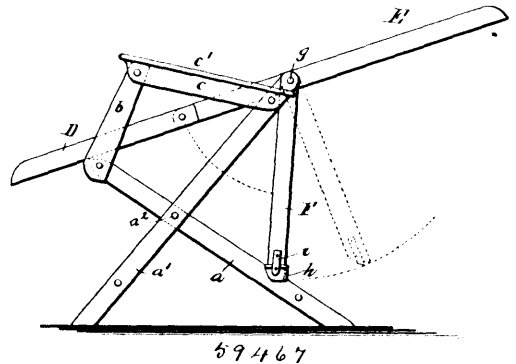
Claim.—A sheep-dip or insecticide, consisting of a mixture of powdered tobacco, flowers of sulphur, ground hellebore, and ammoniated soda ash, in substantially the proportions and for the purpose set forth.

No. 59,467. Folding Chair. (Siège pliant.)

Hiram Fulford Rankin and Thomas William Albert Lindsay, both of Ottawa, Ontario, Canada, 26th March, 1898; 6 years. (Filed 22nd March, 1898.)

Claim.—1st. The combination with the side frames composed of folding crossed legs, of a folding seat and back supported on said side frames, and folding upright stop bars or braces connecting the

portions of the crossed legs in the rear of their connecting pivots and detachably connected at one end to said legs substantially as



set forth. 2nd. The combination with the side frames composed of folding crossed legs, of standards pivoted at their lower ends to the front ends of the rearwardly inclined legs, arm rests pivoted at their front ends to the upper ends of said standards and at their rear ends to the upper ends of the forwardly inclined legs, upright struts or stop bars pivoted at their upper ends to the forwardly inclined legs and having their lower ends detachably connected to the lower portions of the rearwardly inclined legs, a tilting back pivoted near its lower end to the upper portions of said struts, and a sliding seat pivoted at its rear end to the lower end of the back and resting with its front portion loosely on the side frames, substantially as set forth. 3rd. The combination with the side frames composed of folding crossed legs, the rearwardly inclined legs being provided in rear of their pivot with sockets, of a folding seat and back supported on said side frames, and folding upright struts or stop bars pivoted at their upper ends to the upper rear portions of the side frames and having their lower ends seated detachably in said sockets, substantially as set forth. 4th. The combination with the side frames composed of folding crossed legs, of sockets secured to the rearwardly inclined legs and each composed of side walls or plates which straddle the leg and a rear plate connecting the side walls and bearing upon the leg, a folding seat and back supported on said side frames, folding upright struts or stop bars pivoted at their upper ends to the upper rear portions of the side frames and having their lower ends seated in said sockets, and catches for locking the stop bars in said sockets, substantially as set forth.

No. 59,468. Method of Waterproofing Fabrics.

(*Methode de rendre les tissus impermeable à l'eau*)

The firm of Amos and Company, assignee of Herman Spanngel, all of Frankfurton, Main, Empire of Germany, 26th March, 1898; 18 years. (Filed 11th September, 1896.)

Claim.—1st. A method of waterproofing fabrics, paper, leather and the like, consisting in dissolving fatty or oily salts of alumina in an easily evaporating solvent, saturating the said articles with the solution and subsequently evaporating the solvent, substantially as described. 2nd. A method of waterproofing fabrics, paper, leather, and the like, consisting in dissolving salts in an easily evaporating liquid of the benzo class, saturating the said articles with the solution and allowing the solving agent to evaporate. 3rd. A method of waterproofing fabrics, paper, leather and the like, consisting in dissolving salts of alumina in an easily evaporating liquid of the benzol class, saturating the said article with the solution and allowing the solving agent to evaporate. 4th. A method of waterproofing fabrics, paper, leather and the like, consisting in dissolving oily or fatty salts of alumina in an easily evaporating liquid of the benzol class, saturating the said articles with the solution and allowing the solvent agent to evaporate. 5th. A method of waterproofing fabrics, paper, leather and the like, consisting in dissolving salts of alumina in an easily evaporating liquid of the benzol class, saturating the said articles with the solution, allowing the solving agent to evaporate, and recondensing the evaporated liquid of the benzol class, substantially as described.

TRADE-MARKS

Registered during the month of March, 1898, at the Department of Agriculture--
Copyright and Trade-Mark Branch.

6385. THE VALENTINE EXTRACT COMPANY, LIMITED, London, England. Substances used as food, or as ingredients in food, such as extracts of meat, poultry, fish, soups, cream and other dairy produce, 1st March, 1898.
6386. WOOD BROTHERS, St. Catharines, Ont. Leather, 2nd March, 1898.
6387. MEINECKE & COMPANY, New York, N. Y., U.S.A. Nipples for nursing bottles, 2nd March, 1898.
6388. FARBERWERKE vorm. MEISTER, LUCIUS and BRÜNING, Hoechst-a-Main, Germany. General Trade Mark, 2nd March, 1898.
6389. THE BIRMINGHAM SMALL ARMS COMPANY, LIMITED, Small Heath, near Birmingham, England. Velocipedes, such as framings, handles, hubs, bottom brackets, cranks, drive chain, chain wheels, pedals, gear cases, wheels, wheel rims and the like, 2nd March, 1898.
6390. FRANCIS ROBERT CLOSE, Hamilton, Ont. Groceries, such as tea, baking powder, spices, coffee, cereals, flour, extracts, canned fruit and vegetables, 3rd March, 1898.
6391. THE ST. CHARLES CONDENSING COMPANY, St. Charles, Illinois, U.S.A. Creamery products (Evaporated cream), 3rd March, 1898.
6392. HUBERT HUXLEY MASON, London, England. A medicinal preparation for application in acute rheumatism, gout, sciatica, &c., &c., 3rd March, 1898.
6393. RIGAUD and CHAPOTEAUT, Paris, France. Medicinal capsules for regulation of certain troubles of the human system, 3rd March, 1898.
6394. RIGAUD and CHAPOTEAUT, Paris, France. Medicinal capsules containing the curative and active principle of cod liver oil, 3rd March, 1898.
6395. RIGAUD and CHAPOTEAUT, Paris, France. Medicinal capsules of certain curative properties and especially containing santal oil, 3rd March, 1898.
6396. A. F. MACLAREN & COMPANY, Toronto, Ont. Cheese, 4th March, 1898.
6397. CHARLES FREDERICK LAMONT, St. Louis, Missouri, U.S.A. Egg meat, 4th March, 1898.
6398. JAMES REID McCREA, London, Ont. Red Coated Pills, 5th March, 1898.
6399. CYRUS M. AVERY, Chicago, Illinois, U.S.A. Culinary Utensils, 5th March, 1898.
6400. EZEKIEL McCONKEY, St. Johns, Que. A medicinal preparation for the cure of scrofula, ulcers, fevers, sores, salt rheum, scald head, erysipelas, eruptions of the skin and like complaints arising from impurity of the blood, 8th March, 1898.
6401. WELLAND VALE MANUFACTURING COMPANY, LIMITED, St. Catharines, Ont. Axes, Scythes and Saws, 9th March, 1898.
6402. LAWRENCE ALEXANDER WILSON, Montreal, Que. Whiskies, 9th March, 1898.
6403. FRANCIS RICHARD BOSELLY, Toronto, Ont. Substances used as food, such as wheat foods, prepared tea and coffee, 10th March, 1898.
6404. POPE MANUFACTURING COMPANY, Portland, Maine; and Hartford, Connecticut, U.S.A. Vehicles, 14th March, 1898.
6405. DANIEL CRAWFORD & SON, LIMITED, 81 Queen Street, Glasgow, Scotland. Whisky, 14th March, 1898.
6406. McCOLL BROTHERS & COMPANY, Toronto, Ont. Varnishes, 14th March, 1898.
6407. ANDERSON FURNITURE COMPANY, LIMITED, Woodstock, Ont. Furniture, 15th March, 1898.
6408. ALASKA COMMERCIAL COMPANY, San Francisco, California, U.S.A. General Trade Mark, 16th March, 1898.

6409. { LA SOCIÉTÉ CHIMIQUE DES USINES DU RHONE, anciennement
GILLIARD P. MONNET ET CARTIER, Lyons, France. A
6410. { chemical substance adapted for use in medicine as a sweetening
agent, and in manufactures and arts, 16th March, 1898.
6411. PARIS MEDICINE COMPANY, St. Louis, Missouri, U.S.A. Remedies
for coughs, colds, headaches and la grippe, 18th March, 1898.
6412. WILLIAM PATON, LIMITED, Johnstone, near Glasgow, Scotland. Boot
and Shoe Laces, 18th March, 1898.
6413. TOOKE BROTHERS, Montreal, Que. Garments, Underclothing and Hosiery,
18th March, 1898.
6414. CHARLES EDOUARD PICHETTE, St. Léon, Qué. Marque de Commerce
Générale, 18 mars, 1898.
6415. { JAMES ALEXANDER, Montreal, Que. Alimentary and manufacturing
6416. { farm products, such as butter, cheese, eggs, apples—green or
dried, meats, rennets or rennet extract, annatto or other liquids
used in the manufacture of butter or cheese, 19th March, 1898.
6417. ISAAC BLUMENSTIEL, Hamilton, Ont. Cigars, 21st March, 1898.
6418. THE WINDSOR PLASTER COMPANY, Windsor, N.S. Wall and ceiling
plasters, 22nd March, 1898.
6419. L. A. BERNARD, Montréal, Qué. Une composition chimique pour detruire
les punaises, coquerelles, rats, etc., 22 mars, 1898.
6420. JOHN MORRISON McLEOD, Goderich, Ont. A remedy for cancer, carti-
laginous ulcers, sore throat and a variety of skin diseases, and
when diluted, a catarrhal wash, and also an eye water, 22nd
March, 1898.
6421. HENRY DE GRANDSAIGNES, Vicomte d'HAUTERIVES, Paris,
France. Un genre de seances de projections animées ayant pour
objet des sujets historiques et de conferences sur les dits sujets, 24
mars, 1898.
6422. { THE TOBACCO WAREHOUSING AND TRADING COMPANY, Dan-
6423. { ville, Virginia, U.S.A. Tobacco, both raw and manufactured,
6424. { and especially chewing and smoking tobacco, tobacco stems,
6425. { tobacco leaves, tobacco powder, tobacco extracts, extract or
6426. { powder made from tobacco or tobacco stems, insecticides, sheep
dip, dog soap, and any veterinary article made or produced from
tobacco or its properties, or containing the same, 24th March, 1898.
6427. LAWRENCE ALEXANDER WILSON, Montreal, Que. Wine, 25th March,
1898.
6428. GEORGE N. WEBSTER, Toronto, Ont. Medical compounds, 25th March,
1898.
6429. }
6430. }
6431. }
6432. } C. BRANDAUER & COMPANY, New John Street West, Birmingham,
6433. } England. Steel Pens, 25th March, 1898.
6434. }
6435. }
6436. }
6437. }
6438. REMY BURGER, Toronto, Ont. Easter eggs, candy, chocolate or other
confections, 26th March, 1898.
6439. LA SOCIÉTÉ ANONYME DU ST. RAPHAEL QUINQUINA, 18 Avenue
Parmentier, Paris, France. Wine, 28th March, 1898.
6440. THE ARCADE MANUFACTURING COMPANY, Freeport, Illinois, U.
S. A. Cork Pullers, 28th March, 1898.
6441. THE TORONTO RADIATOR MANUFACTURING COMPANY,
LIMITED, Toronto, Ont. Radiators, 31st March, 1898.
6442. AMERICAN DRESSING COMPANY, Montreal, Que. Leather dressings
and blackings, 31st March, 1898.

COPYRIGHTS

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Copyright and Trade-Mark Branch.

9776. MY LOVE FOR THEE. (Song.) Words by M. L. B., Music by Maude Fairbairn. A. & S. Nordheimer, Toronto, Ont., 1st March, 1898.
9777. INTERNATIONAL VALSE. Par C. Masson. Madame C. Masson-Caza, Montréal, Qué., 1er mars, 1898.
9778. AT THE FOLIES BERGÈRES. By G. Wertheimer. (Photogravure.) Canadian Royal Art Union, (Ltd.), Montreal, Que., 2nd March, 1898.
9779. GIRL WITH SHEEP. By G. S. Truesdell. (Photogravure.) Canadian Royal Art Union (Ltd.), Montreal, Que., 2nd March, 1898.
9780. LOW TIDE BRITTANY. By J. L. France. (Photogravure.) Canadian Royal Art Union (Ltd.), Montreal, Que., 2nd March, 1898.
9781. PICKPOCKETS. By G. Gélibert. (Photogravure.) Canadian Royal Art Union (Ltd.), Montreal, Que., 2nd March, 1898.
9782. CONGRATULATION MARCH. (Two-Step.) By J. Bedford Campbell. Whaley, Royce & Co., Toronto, Ont., 2nd March, 1898.
9783. DON'T ASK ME TO GIVE UP MY MOTHER. Words by Raymond A. Browne. Music by Monroe H. Rosenfeld. Chas. O. Brokaw, St. Joseph, Missouri, U. S. A., 2nd March, 1898.
9784. LA SPANIOLA WALTZ. For Piano. By Arthur Pryor. Chas. O. Brokaw, St. Joseph, Missouri, U. S. A., 2nd March, 1898.
9785. THE KNAPP ROLLER BOAT. (Photogravure.) Wm. Thomson Freeland, Toronto, Ont., 2nd March, 1898.
9786. ORDER MEMO. (Form.) Albert E. Jones, Toronto, Ont., trading as THE GROCER'S ORDER FORM CO., 2nd March, 1898.
9787. THE KLONDYKE WALTZ. By Edouard Celestin Lemieux, Eganville, Ont., 2nd March, 1898.
9788. THE KLONDIKE; OR, THE EXPERIENCES OF A WINTER IN THE KLONDIKE. (A Play.) By W. S. Mitchell, Vancouver, B.C., 2nd March, 1898.
9789. REVIEW OF HISTORICAL PUBLICATIONS RELATING TO CANADA. Edited by George M. Wrong, M.A. (Volume II.) Publications of the year 1897. George M. Wrong, Toronto, Ont., 3rd March, 1898.
9790. JUDITH MOORE. By Joanna E. Wood. Ontario Publishing Co. (Ltd.), Toronto, Ont., 4th March, 1898.
9791. THE CANADIAN MAGAZINE. (March, 1898.) Ontario Publishing Co. (Ltd.) Toronto, Ont., 4th March, 1898.
9792. THE TRAIL OF THE SWORD. By Gilbert Parker, London, England, 4th March, 1898.
9793. LA REVUE CANADIENNE. (Mars 1898.) Alphonse Leclair, Montréal, Qué., 4 mars 1898.
9794. A TREATISE ON THE INSURANCE LAW OF CANADA. (Embracing Fire, Life, Accident, Guarantee, Mutual Benefit, etc.) By Charles M. Holt, LL.D. C. M. Holt and C. Theoret, Montreal, Que., 4th March, 1898.
9795. A STUDY IN COLOUR. (Photo.) Atkinson Brothers, Toronto, Ont., 5th March, 1898.
9796. ALL COONS LOOK ALIKE TO ME. (Photo.) Atkinson Brothers, Toronto, Ont., 5th March, 1898.
9797. ALLIGATOR BAIT. (Photo.) Atkinson Brothers, Toronto, Ont., 5th March, 1898.
9798. LE GUIDE DU MINEUR. Par Raoul Rinfret, Montréal, Qué., 5 mars 1898.
9799. ALONZO. (A poem in three Cantos.) By Arago Easton, London, Ont., 5th March, 1898.
9800. THE HOMELAND. (Song.) Words and music by H. H. Godfrey, Toronto, Ont., 5th March, 1898.

9801. REVUE GÉNÉRALE DE PHARMACIE ET D'HYGIENE PRATIQUES. Vol. I. No. 1. (Mars 1898.) Gaston de Werthemer, Montréal, Qué., 7 mars 1898.
9802. THE HISTORY OF THE ORANGE ORDER. William Banks, Toronto, Ont., 7th March, 1898.
9803. DAVID LYALL'S LOVE STORY. By the Author of THE LAND 'O THE LEAL. The Copp, Clark Co. (Ltd.), Toronto, Ont., 8th March, 1898.
9804. SPRING AND SUMMER CATALOGUE, NO. 40, 1898. The T. Eaton Co. (Ltd.), Toronto, Ont., 9th March, 1898.
9805. ONTARIO PRACTICE REPORTS. By T. T. Rolph, Barrister-at-law and Reporter to the Court. J. F. Smith, Q.C., Editor. (Volume XVII.) The Law Society of Upper Canada, Toronto, Ont., 9th March, 1898.
9806. THE CANADIAN MEN AND WOMEN OF THE TIME. (A Handbook of Canadian Biography.) Edited by Henry James Morgan, Barrister. First Edition. Albert Norton Proctor Morgan, Ottawa, Ont., 10th March, 1898.
9807. THE LEVEQUE SYSTEM OF BOOK-KEEPING: JOURNAL AND LEDGER COMBINED. Cyrille Leveque & Co., Toronto, Ont., 10th March, 1898.
9808. A SOCIAL RECONSTRUCTION. By Capt. Jack. Story published in THE MAIL AND EMPIRE, Toronto, Ont. (Temporary Copyright.) John Innes, Toronto, Ont., 11th March, 1898.
9809. THE KLONDIKE OFFICIAL GUIDE. Prepared by Wm. Ogilvie, Astronomer of the Department of the Interior. The Hunter, Rose Co. (Ltd.), Toronto, Ont., 11th March, 1898.
9810. THE IMPERIAL RECORD. (Coupon Book.) J. B. E. Poirier, Montreal, Que., 11th March, 1898.
9811. CALIGRAPHY: THE NEW SHORTHAND. By Anthony Malone, Garden Island, Ont., 12th March, 1898.
9812. THE DELINEATOR. (A Journal of Fashion, Culture and Fine Arts.) April, 1898. The Butterick Publishing Co. (Ltd.), New York, N.Y., U.S.A., 12th March, 1898.
9813. THE GLASS OF FASHION UP TO DATE. (April, 1898.) The Butterick Publishing Co. (Ltd.), New York, N.Y., U.S.A., 12th March, 1898.
9814. METROPOLITAN FASHIONS. (April, 1898.) The Butterick Publishing Co. (Ltd.), New York, N.Y., U.S.A., 12th March, 1898.
9815. A HISTORY OF THE DOMINION OF CANADA. By John B. Calkin, M.A. A. & W. MacKinlay, Halifax, N.S., 12th March, 1898.
9816. SWEET DREAMS OF THE PAST. For Piano. By Christina E. Johnson, Montreal, Que., 12th March, 1898.
9817. CIVIL CODE OF LOWER CANADA. By Henry J. Kavanagh, Q.C. John Lovell & Son, Montreal, Que., 12th March, 1898.
9818. GUIDE BOOK TO THE OLD FAVOURITE SPA, CALEDONIA SPRINGS, ONTARIO. The Grand Hotel Company of Caledonia Springs (Ltd.), Caledonia Springs, Ont., 14th March, 1898.
9819. THE GENERAL USAGE AS TO THE WATERS, BATHS, AND LIVING AT CALEDONIA SPRINGS, ONTARIO. (Card.) The Grand Hotel Company of Caledonia Springs, (Ltd.), Caledonia Springs, Ont., 14th March, 1898.
9820. THE DOMINION SHORT-HORN HERD BOOK. (Volume X.) The Dominion Short-Horn Breeders' Association, Toronto, Ont., 14th March, 1898.
9821. THE DOMINION SHORT-HORN HERD BOOK. (Volume XI.) The Dominion Short-Horn Breeders' Association, Toronto, Ont., 14th March, 1898.
9822. THE DOMINION SHORT-HORN HERD BOOK. (Volume XII.) The Dominion Short-Horn Breeders' Association, Toronto, Ont. 14th March, 1898.
9823. THE DOMINION SHORT-HORN HERD BOOK. (Volume XIII.) The Dominion Short-Horn Breeders' Association, Toronto, Ont. 14th March, 1898.
9824. DINAH'S TWO-STEP. By L. Lowry. Verrall & Draper, Toronto, Ont. 14th March, 1898.
9825. TALLY-HO TWO-STEP. By J. A. LeBarge. Verrall & Draper, Toronto, Ont., 14th March, 1898.

9826. I'M A PEACH. Words and Music by Theo. A. Metz. Verrall & Draper, Toronto, Ont., 14th March, 1898.
9827. LITTLE COTTON DOLLY. Plantation Lullaby. Words by Richard Henry Buck. Music by Adam Geibel. Verrall & Draper, Toronto, Ont., 14th March, 1898.
9828. BON ACCORD MARCH. By Alton N. Heller. A. & S. Nordheimer, Toronto, Ont., 14th March, 1898.
9829. THE REAPERS' SONG. Poem by W. V. B. Thompson. Music by Frederick L. Lawrence, Thompson & Lawrence, of Montreal, Que., and Leipzig, Germany, respectively, 14th March, 1898.
9830. MAP SHEWING THE YUKON RIVER AND KLONDYKE DISTRICTS, (NORTH-WEST TERRITORIES OF CANADA) AND APPROACHES THERETO. Compiled by Charles Sparkes Lott Calgary, N.W.T., 14th March, 1898.
9831. MÉTHODE DE PLAIN-CHANT. Par Etienne Legaré. (Deuxième Edition.) J. A. Langlais et Fils, Québec, Qué., 14 mars, 1898.
9832. F. A. KNAPP, B.C.L. (Photo.) Wm. T. Freeland, Toronto, Ont., 16th March, 1898.
9833. PORTRAIT PAINTING OF SIR ISAAC BROCK, K. B. John W. L. Forster, Toronto, Ont., 17th March, 1898.
9834. ANNUAL CATALOGUE AND TREATISE ON THE DISEASES AFFECTING FRUIT TREES, VEGETABLES, ETC., AND THEIR REMEDIES. Wm.H. Heard, London, Ont., 18th March, 1898.
9835. SKETCH MAP OF THE OVERLAND ROUTE TO THE YUKON FROM ASHCROFT, BRITISH COLUMBIA. Compiled by Direction of Hon. Chief Commissioner Land and Works Department, Victoria, B.C. Herbert Llewellyn Roberts, Ashcroft, B.C., 21st March, 1898.
9836. MAP OF LAKES OF MUSKOKA. Toronto Lithographing Co. (Ltd.), Toronto, Ont., 21st March, 1898.
9837. PHOTOGRAPH OF THE OPUNTIA MISSIONIENSIS. (Flower.) Marked A. Geraldine Moodie, Maple Creek, N.W.T., 21st March, 1898.
9838. PHOTOGRAPH OF THE MENTZELIA DECAPETALA. (Flower.) Marked B. Geraldine Moodie, Maple Creek, N.W.T., 21st March, 1898.
9839. PHOTOGRAPH OF THE MENTZELIA DECAPETALA. (Flower.) Marked C. Geraldine Moodie, Maple Creek, N.W.T., 21st March, 1898.
9840. COME BACK BABE. Words by John E. Turton. Music by Arthur L. E. Davies. Whaley, Royce & Co., Toronto, Ont., 21st March, 1898.
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9852. WEEKLY BUSINESS BULLETIN, TORONTO, MARCH 26, 1898. Henry Ashman, Toronto, Ont., 31st March, 1898.
9853. THE NEWCOMBE TRIUMPHAL MARCH OF PROGRESS. Composed by Carl Julian. O. Newcombe & Co., Toronto, Ont., 31st March, 1898.