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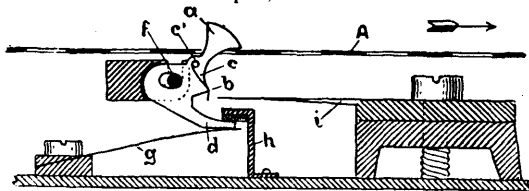
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INVENTIONS PATENTED.

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

No. 51,482. Damper Device for Mechanical Musical Instruments. (*Appareil modérateur pour instruments de musique.*)



51482

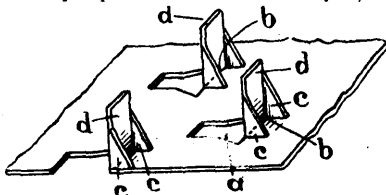
Dr. Adolf Richter, Rudolstadt, Germany, 2nd March, 1896; 6 years. (Filed 15th January, 1896.)

Instead of attaching the springs *c*, as shown at figure 1 at *c*¹ to the hammer sides, the same may be attached at *c*² (figure 5) on the lower arm of the hammer and extend upwardly. If very light combs are employed the damper may consist of one spring only.

Claim.—A striking and damping device for the steel combs of mechanical musical instruments, consisting of a hammer, loosely mounted by means of a slot on the fast shaft, said hammer having an upward projection *a*, a striking nose *b*, an arm *d* to limit its upward movement and damper device consisting of laterally attached springs adapted to contact with the end of the tongue on the forward movement of the hammer and means for keeping the said hammer in contact with the note sheet, substantially as described.

No. 51,483. Tune Disc.

(*Disque pour instrument de musique.*)

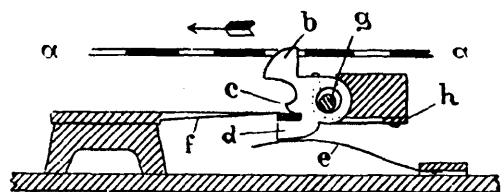


51483

Dr. Adolf Richter, Rudolstadt, Germany, 2nd March, 1896; 6 years. (Filed 15th January, 1896.)

Claim.—1st. In a metallic note band, disc or sheet, the combination of a vertical tongue as *d* stamped out of the said sheet band or disc, and having lateral stays integral therewith and forming extensions of the sides thereof in the manner and for the purpose substantially as described. 2nd. In a note sheet, band or disc, the combination of a vertical tongue stamped or cut out of the said sheet, band or disc and integral therewith, and having a lateral stay integral with the side thereof, substantially as described. 3rd. In a metallic note band, sheet or disc, the combination of a vertical tongue *d*, stamped or cut out of the said disc, band or sheet, and lateral stays as *c* *e* integral with the sides of said vertical tongue and supporting the same at the rear with regard to the direction of rotary or longitudinal motion of the said disc band or sheet, substantially as described. 4th. A note band, disc or sheet having tongues or teeth struck up therefrom and substantially perpendicular thereto, said teeth having stays formed integral with the sides between the base and the upper working edges thereof, which stays are adapted to reach contact with the body of the band, disc or sheet, substantially as described. 5th. A note band, disc or sheet, carrying teeth or projections that project from its face and are integral therewith, said teeth carrying braces which project from the sides of said teeth and reach contact with the disc, band or sheet, substantially as described.

No. 51,484. Device for Vibrating Tongues of Music Boxes. (*Appareil pour la vibration des languettes de boîtes à musique.*)



51484

Dr. Adolf Richter, Rudolstadt, Germany, 2nd March, 1896; 6 years. (Filed 15th January, 1896.)

Claim.—1st. The combination of a hammer having arranged at one and the same side of its pivot a cam *b*, a projection *c*, and a damper *d*, a spring *e* mounted on the base plate to bear against the under surface of said damper and enlarged pivot hole and a pivot *g*, substantially as described. 2nd. The combination of a hammer having at one and the same side of its pivot a cam *b*, a projection *c*, and damper *d*, a spring *e* attached to the base plate to bear against the under surface of said damper, an enlarged pivot hole and a pivot spindle *g* therein, a second spring *h* to bear against the under surface of the pivot boss of the hammer, substantially as described.

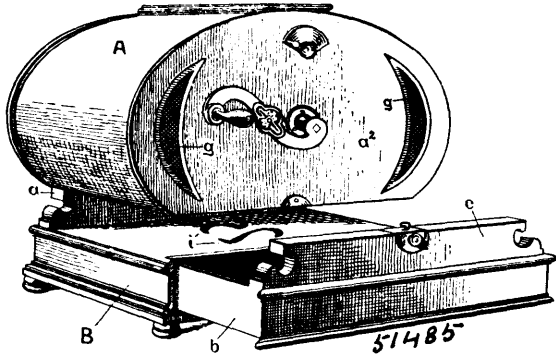
No. 51,485. Mechanical Musical Instrument.

(*Instrument de musique mécanique.*)

Dr. Adolf Richter, Rudolstadt, Germany, 2nd March, 1896; 6 years. (Filed 15th January, 1896.)

Claim.—1st. In a mechanical musical instrument, the combination of an oval casing having a downwardly extending rear wall, a sounding board below said casing and connected thereto by means of said rear wall, a space between said casing and sounding board, and a removable front support to said casing extending between its lower front edge and the sounding board, substantially as described.

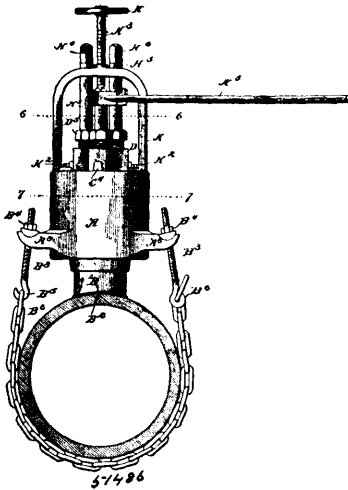
2nd. The combination of the oval casing A, having a rear wall *a* extending downwardly, a sounding shell B arranged under said



casing and connected thereto by said rear wall, and a drawer in said shell having an upwardly extending front wall to engage under and support the front of the said casing, substantially as described. 3rd. The combination of an oval casing A, having therein three compartments *x, y, z*, of which the centre one contains the musical works, a downwardly extending rear wall to said casing, a sounding shell arranged thereunder and connected to the casing by the said rear wall, and a front support for the casing arranged between the sounding shell and the casing, substantially as described. 4th. The combination of an oval casing A, having therein three compartments *x, y, z*, a downwardly extending rear wall *a* to said casing, a sounding shell B below said casing and connected therewith by means of said rear wall, a drawer in said sounding shell having an upwardly extending front wall to engage under the casing when the said drawer is closed, substantially as described. 5th. The combination of an oval casing A, having three compartments *x, y, z*, sound holes *g* to the two end compartments, a downwardly extending rear wall to said casing, a sounding shell having holes *i* arranged under said casing and connected thereto by said rear wall, a drawer in said sounding shell having an upwardly extending front wall to engage under the front of the casing in the manner and for the purpose, substantially as described and shown.

No. 51,486. Machine for Tapping Mains.

(Machine pour tarauder les tuyaux.)

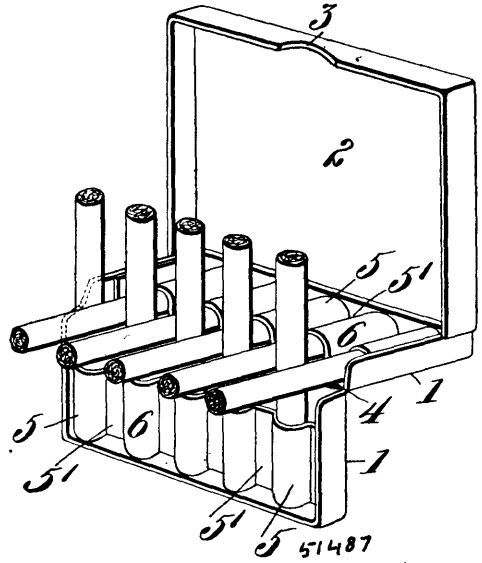


Mathew C. Walker, Des Moines, Iowa, U.S.A., 2nd March, 1896; 6 years. (Filed 16th January, 1896.)

Claim.—The combination in a main tapping machine of an annular collar screw-threaded on its exterior designed to be screwed into the top of the machine body, and having an annular recess at its inner lower surface and another at its inner top surface, a rotatable cap designed to enter said collar and having an annular flange on its outer surface to enter said upper recess, and a disc designed to enter said lower recess and screws for holding said cap and disc together, substantially as and for the purposes stated.

No. 51,487. Retail Box or Package.

(Boîte à cigarettes, etc.)



The Drummond Tobacco Company, assignee of Charles Kossuth Pickles and William Henry Scott, all of St. Louis, Missouri, U.S.A., 2nd March, 1896; 6 years. (Filed 10th January, 1896.)

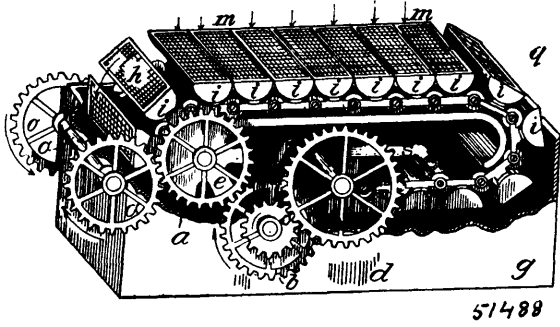
Claim.—1st. A box or package provided with a flexible joint at or near its midlength, and a series of holding pockets in the interior of the box that have a parallel arrangement at each side of the flexible joint, such pockets having a staggered relation to each other, substantially as set forth. 2nd. A box or package provided with a flexible joint at or near its midlength, and a series of holding pockets 5, and an alternate series of open topped pockets 5', such pockets having a parallel arrangement at each side of the flexible joint, substantially as set forth. 3rd. A box or package provided with a flexible joint at or near its midlength, and a series of holding pockets 5, and an alternate series of open topped pockets 5', such pockets having a parallel arrangement at each side of the flexible joint and staggered with relation to each other, substantially as set forth. 4th. A box or package having a length approximating that of the contained articles, and provided with a flexible joint at or near its midlength, and a series of holding pockets in the interior of the box, that have parallel arrangement at each side of the flexible joint, such pockets being formed by corrugated strips secured to the interior of the box, said pockets having a staggered relation, substantially as set forth. 5th. A box or package made flexible between its ends, means whereby a portion of the contained articles is held by an end at one side of the point of flexure, and means whereby the other portion of such articles is held by an end at the opposite side of such flexure, the arrangement being such that the free ends of the articles will cross such points of flexure, and will project in a crossed relation from the package, on a flexure of the same, substantially as set forth. 6th. A box or package made flexible between its ends, a rigid cover hinged thereto and affording stiffness to the package when closed, means whereby a portion of the contained articles is held by an end at one side of the point of flexure, and means whereby the other portion of such articles is held by an end at the opposite side of such flexure, the arrangement being such that the free ends of the articles will cross such point of flexure, and will project in a crossed relation from the package, on a flexure of the same, substantially as set forth.

No. 51,488. Suction Device for Paper Making Machines. (Appareil à aspiration pour machines à faire le papier.)

The Vacuum Wet Machine Company, assignee of Henry Fairbanks and Howard Parker, all of St. Johnsbury, Vermont, U.S.A., 2nd March, 1896; 6 years. (Filed 7th January, 1896.)

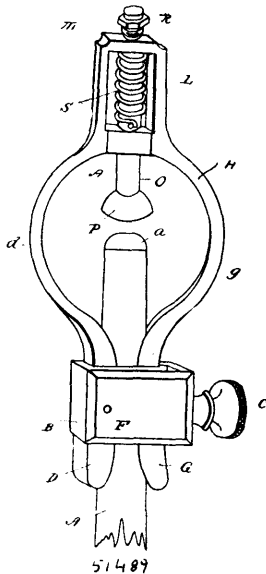
Claim.—1st. In a paper or pulp machine, the combination of an endless apron, adapted to carry wet pulp, with a series of travelling suction-boxes, successively carried beneath, and in working contact under said apron, and with means for exhausting the same, substantially as and for the purpose herein specified. 2nd. In a paper or pulp machine, the combination of an endless apron adapted to carry wet pulp, with partially exhausted travelling suction-boxes carried successively beneath and in supporting contact under said apron, and with the endless chains connecting them in series, and the tracks upon which they ride, directing their motion as herein described. 3rd. In a paper or pulp machine, the combination of an endless

apron adapted to carry wet pulp, with partially exhausted travelling suction boxes carried successively beneath and in working contact



under said apron, and with the endless chains connecting them in series, and the sprocket wheels and gear connections whereby they are carried forward with the same movement as the apron resting upon them, substantially as and for the purpose specified. 4th. In a paper or pulp machine, the combination an endless apron adapted to carry wet pulp, a series of open top boxes, means for moving them beneath and in contact with said apron, the exhaust chamber *r*, communicating with said boxes, and the exhaust conduit *s*, as herein fully described. 5th. In a paper or pulp machine, the combination of the endless apron, adapted to carry wet pulp upon one side, with the suction boxes *i*, *i*, in working contact with the other side of the disc *j*, on a shaft geared to move with the series of boxes, the exhaust chamber *r*, with which the flexible hose from the boxes communicates, and the exhaust conduit *s*, all constructed and arranged, substantially as set forth. 6th. In a paper or pulp machine, the combination of the endless apron *y* adapted to carry wet pulp, with the open top boxes *i*, *i*, upon which this apron rests, the flexible hose pipes *k*, *k*, connecting these boxes to the openings *n*, *n*, of the disc *j*, and the exhaust chamber *r*, and with the supporting track *q*, the links *l*, *l*, the sprocket wheel *c*, and the gear wheels *a*, *b*, *c* and *d*, constructed and arranged for joint action, substantially as and for the purpose herein described.

No. 51,489. Device for Placing Tips on Billiard Cues.
(Appareil pour placer les bouts sur les queues de billard.)

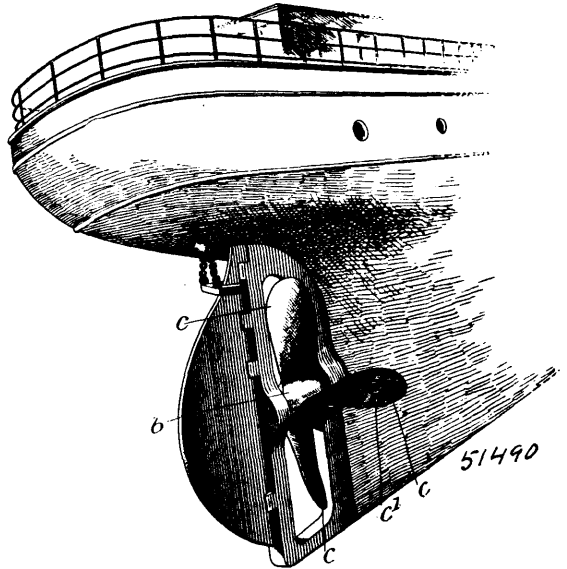


Samuel Perry Davis, Danielson, Connecticut, U.S.A., 2nd March, 1896; 6 years. (Filed 13th January, 1896.)

Claim.—1st. A clamp for the purposes herein described, consisting of a casing, a clamp composed of two jaws, each of which is provided with a free end, one of which is secured within said casing, and the other passed loosely therethrough said casing being also provided with a set screw which is adapted to operate in connection with the loose jaw, and said clamp, being provided at its opposite end with a sliding spring operated bolt, having a head which projects in the direction of said casing, substantially as shown and described. 2nd. A clamp for the purposes herein described, consisting of a casing, a clamp composed of two jaws, each of which is provided with a free end, one of which is secured within said casing, and the other passed loosely therethrough said casing being also provided with a set screw,

which is adapted to operate in connection with the loose jaw, and said clamp being provided at its opposite end with a sliding spring operated bolt, having a head which projects in the direction of said casing, said jaws being united and provided with transverse plates, which form bearing for said bolt, and said bolt being provided with a spiral spring, which is mounted thereon, between said bearings and adapted to force the bolt in the direction of the free ends of the jaws, substantially as shown and described. 3rd. A clamp for the purposes herein described, consisting of a casing, a clamp composed of two jaws, each of which is provided with a free end, one of which is secured within said casing, and the other passed loosely therethrough said casing being also provided with a set screw which is adapted to operate in connection with the loose jaw, and said clamp being provided at its opposite end with a sliding spring operated bolt, having a head which projects in the direction of said casing, said jaws being united and provided with transverse plates, which form bearings for said bolt, and said bolt being provided with a spiral spring, which is mounted thereon, between said bearings and adapted to force the bolt in the direction of the free ends of the jaws, said bolt being also screw threaded at its outer end, and provided with asset nut, substantially as shown and described.

No. 51,490. Screw Propeller. (*Propulseur à hélice.*)



Alfred Wells Case, Highland Park, Connecticut, U.S.A., 2nd March, 1896; 6 years. (Filed 15th January, 1896.)

Claim.—A screw propeller having a hub and a series of blades arranged about and projecting from it, each blade inclined forward in the direction of forward motion of the vessel as described, and also having its working surface at its centre line offset, and located in a plane racking backward at an angle from a radius passing through the root of the blade and in the plane of rotation of the screw, whereby a rearward and outward thrust upon the water is obtained in a forward rotary movement of the wheel, all substantially as described.

No. 51,491. Preparation of Cosmetic Cream.

(*Préparation de crème cosmétique.*)

Frederick T. James, New York, State of New York, U.S.A., 2nd March, 1896; 6 years. (Filed 16th January, 1896.)

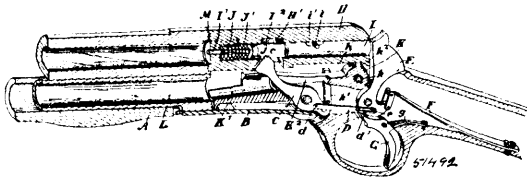
Claim.—1st. The herein described composition of matter, composed of the following ingredients, beeswax, stearic acid, spermaceti, oil of sweet almonds, oil of lavender, oil of rose-geranium, carbonate of soda and water, said ingredients being combined, substantially as described. 2nd. The herein described composition of matter, which comprises, pure white beeswax, 6 parts, stearic acid, 4 parts, spermaceti, 2 parts, oil of sweet almonds, 6 parts, oil of lavender, 1½ parts, oil of rose-geranium, ½ part, carbonate of soda, and water, 79 parts, said ingredients being combined, substantially as described.

No. 51,492. Rifle. (*Carabine.*)

Edwin James Cashmore, Toronto, Ontario, Canada, 2nd March, 1896; 6 years. (Filed 11th January, 1896.)

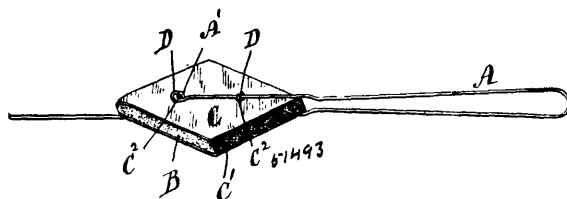
Claim.—1st. In a rifle, the combination with the fore-end sliding breech block, hammer, and trigger, of the locking lever, the recess in the breech block to receive the upper end of such lever and the link connecting the lower end to the fore-end, as and for the purpose specified. 2nd. In a rifle, the combination with the fore-end sliding breech block, hammer, and trigger, of the locking lever, the recess in the breech block to receive the upper end of such lever, the link connecting the lower end to the fore-end and means for con-

necting the hammer to the lower end of the locking lever, as and for the purpose specified. 3rd. In a rifle, the combination



with the fore-end sliding breech block, hammer, and trigger, of the locking lever the recess in the breech block to receive the upper end of such lever, the link connecting the lower end to the fore-end and a link connecting the lower end of the locking lever to the lower end of the hammer and the slot in such link, as and for the purpose specified. 4th. The combination with the barrel chamber and magazine chamber, the breech-block, the locking lever, the fore-end and the link connecting the fore-end to the lower end of the locking lever, of the carrier having a central slot, a lug at the rear upper end of the carrier and an elongated recess in the lower side of the breech block, as and for the purpose specified. 5th. The combination with the barrel chamber and magazine chamber, the breech block, the locking lever, the fore-end and the link connecting the fore-end to the lower end of the locking lever, of the carrier having a central slot, a lug at the rear upper end of the carrier and an elongated recess in the lower side of the breech block and means for holding the carrier in any position it may be moved to, as and for the purpose specified. 6th. The combination with the barrel chamber and magazine chamber and the breech block, the locking lever, the fore-end and the link connecting the fore-end to the lower end of the locking lever, of the carrier having a central slot, a lug at the rear upper end of the carrier, and an elongated recess in the lower side of the breech block and a check spring arranged at the side of the carrier, substantially as and for the purpose specified. 7th. The combination with the chamber, fore-end, locking lever and link connecting the fore-end to the locking lever, of means for connecting the plunger to the upper end of the locking lever upon the operation of the block, as and for the purpose specified. 8th. The combination with the chamber, fore-end, locking lever and link connecting the fore-end to the locking lever of a notch in the upper end of the lever and an engaging point in the plunger for such notch, as and for the purpose specified. 9th. The combination with the lever connecting with the breech block, as specified, of the hammer and link connecting the lower end of the lever to the hammer, as and for the purpose specified.

No. 51,493. Fire Kindler. (Allumoir.)



Henry S. Wright, Madrid Springs, New York, U.S.A., 2nd March 1896; 6 years. (Filed 11th January, 1896.)

Claim.—A fire kindler comprising a pad B of asbestos, sheet metal plates C, C', covering said pad top and bottom, the handle A formed of a wire bent approximately parallel from near the middle, the shorter leg provided with an eye A', secured to the intervening pad and plates by staples D, straddling one leg and passing through said plates and pad, and the ends of each staple twisted together upon the other leg of the handle, as set forth.

No. 51,494. Calendar for Pencils, Etc.

(Calendrier pour crayons, etc.)

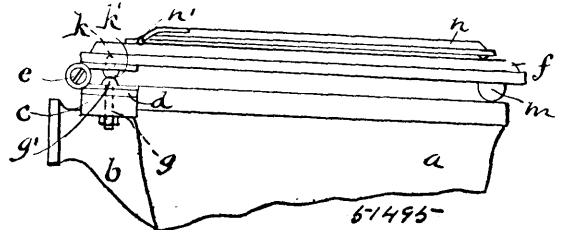


George Washington Johnson, Toronto, Ontario, Canada, 2nd March, 1896; 6 years. (Filed 17th January, 1896.)

Claim.—1st. The combination, with the barrel of a pen or pencil or similar article having the dates of the month indited in columns thereon, of a spring ring having indited upon it the letters representing the days of the week and means for holding the letters of the ring when turned opposite the desired columns of dates, as and for the purpose specified. 2nd. The combination, with the barrel

of a pen or pencil or similar article having the dates of the months indited in columns thereon, of a spring ring having indited upon it the letters representing the days of the week and a teat in such ring designed to be brought to engage with one of a series of seven holes around the periphery of the barrel, as and for the purpose specified. 3rd. The combination, with the barrel of a pen or pencil or similar article having the dates of the months indited in columns thereon, of a spring ring having indited upon it the letters representing the days of the week and an inwardly extending flange on the ring and a corresponding groove in the barrel, as and for the purpose specified.

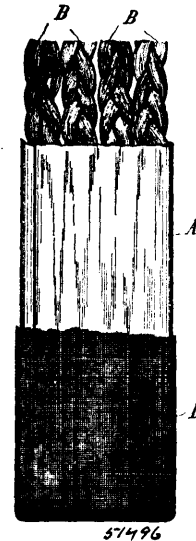
No. 51,495. Water Closet. (Latrine à l'eau.)



Edwin Plant, Montreal, Quebec, Canada, 2nd March, 1896; 6 years. (Filed 12th October, 1894.)

Claim.—1st. A porcelain water closet the horn of which has a seat ledge or support formed in one therewith, for the purpose set forth. 2nd. In a porcelain water closet, the combination with the horn of a seat ledge or support formed in one therewith and a seat hinged directly to said ledge, for the purpose set forth. 3rd. In a porcelain water closet, the combination with the horn or water supply way at the rear thereof, of a seat ledge or support formed in one therewith, a seat hinged directly to said ledge, and a lid hinged to said seat, for the purpose set forth. 4th. In a porcelain water closet, the combination with the horn or water supply way at the rear thereof, of a seat ledge or support formed in one therewith, a seat hinged directly to said ledge, the hinge being secured to said support by bolts passing through same and having projecting heads, and to the seat by screws also having projecting heads, and a lid hinged to said seat, for the purpose set forth.

No. 51,496. Brushes for Taking off the Electric Current. (Brosse pour arrêter le courant électrique.)



Otto Hering, Berlin, assignee of Friedrich Wilhelm Kreinberg, Elsey, Hohenlimburg, both of Prussia, 2nd March, 1896; 6 years. (Filed 10th February, 1894.)

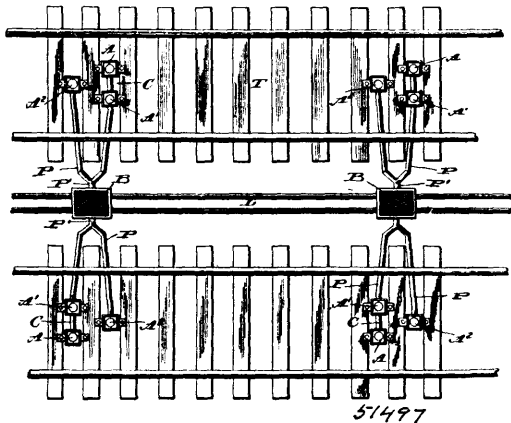
Claim.—A brush for taking off the electric current, in which a well conducting wire bundle is inclosing in a casing made of aluminium or of other similar soft metal or metallic alloy, this casing being hermetically closed until the brush is used.

No. 51,497. Electric Railway System.

(Système de chemin de fer électrique.)

The Electro Magnetic Traction Company, Assignee of Malone Wheelless, both of Washington, Columbia, U.S.A., 2nd March, 1896; 6 years. (Filed 2nd July, 1895.)

Claim.—1st. An electric railway system comprising a car provided with three contact shoes insulated from one another and from



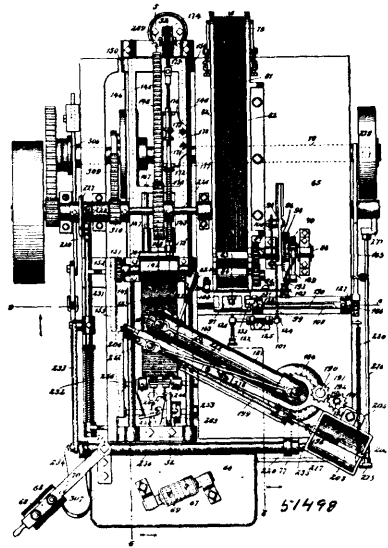
the body of the car, a source of electrical supply having its opposite poles connected to two of said shoes respectively, and a motor having one of its poles connected to one of said last named shoes only, and its opposite pole connected to the third shoe, in combination with track terminals in groups of three, one for each shoe, set at such intervals apart that the contact shoes on the car will reach one group before they leave the other, and all metal circuit, a feeder from the supply side and a return wire from the return side of said service circuit connected to the two track terminals of each group, through which the motor circuit is completed, normally open contacts in each feeder connection, an armature for closing said contacts, a pick up magnet for each armature having its energizing coil connected to the appropriate two of each group of track terminals, and circuit connections whereby when the car shoes meet a group of track terminals, the energizing circuit of the pick up magnet will be closed, substantially as and for the purposes hereinbefore set forth. 2nd. An electric railway system comprising a car provided with three contact shoes insulated from one another and from the body of the car, a source of electrical supply having its opposite poles connected to two of said shoes respectively, and a motor having one of its poles connected to one of said last named shoes only, and its opposite pole connected to the third shoe in combination with track terminals in groups of three, one for each shoe, set at such intervals apart that the contact shoes on the car will reach one group before they leave the other, an all metal service circuit, a feeder from the supply side and a return wire from the return side of said service circuit connected to the two track terminals of each group through which the motor circuit is completed, normally open contacts in each feeder and return connections an armature for closing both sets of said contacts, a pick up magnet for each armature having its energizing coil connected to the appropriate two of each group of track terminals, and circuit connections whereby when the car shoes meet a group of track terminals, the energizing circuit of the pick up magnet will be closed, substantially as and for the purposes hereinbefore set forth. 3rd. A track terminal holder comprising a socketed receptacle formed with a passage below the socket for the connecting wiring of the terminals in combination with a non-conducting block seated and held in said socket a track terminal pin passing up through said block, and a contact cap seated on said block and detachably connected to and covering the upper end of the terminal pin, substantially as and for the purposes hereinbefore set forth.

No. 51,498. Cigarette Machine. (Machine à cigarettes.)

John R. Williams, East Orange, New Jersey, U.S.A., 2nd March, 1896; 6 years. (Filed 13th January, 1896.)

Claim.—1st. In a cigarette making machine, the intermittent tobacco feed mechanism, the cutter, and cigarette rolling mechanism, combined with the shuttle having a hinged lid and adapted to travel between said tobacco feed mechanism and said cigarette rolling mechanism and to deposit the severed charge of filler tobacco on the said rolling mechanism, means for opening and closing said lid, the grooved rod upon which said shuttle is secured, the carriage in which said rod is mounted, means for reciprocating said carriage, and the rigid stud entering the groove of said rod and effecting thereby the turning of said shuttle downward to deposit the charge of filler tobacco and then back to a horizontal position, substantially as set forth. 2nd. In a cigarette making machine, the intermittent tobacco feed mechanism, the cutter, and cigarette rolling mechanism, combined with the reciprocating carriage for the shuttle, the grooved shaft mounted in and carried by said carriage, the rigid stud entering the groove of said shaft, and the shuttle mounted upon said shaft and adapted to travel therewith between said tobacco feed mechanism and the said rolling mechanism, the said shuttle being open at one edge to receive the filler tobacco and adapted thereafter, when turned downward by the action of said stud and groove, to discharge the severed charge of tobacco upon said rolling mechanism, substan-

tially as set forth. 3rd. In a cigarette making machine, the intermittent tobacco feed mechanism, the cutter, and cigarette rolling



mechanism, combined with the shuttle adapted to travel between said feed mechanism and said rolling mechanism and having a hinged side and a spring plunger provided with ratchet teeth, the pawl engaging said ratchet teeth and carried by the hinged side of said shuttle, means for holding said hinged side of the shuttle normally closed, means for freeing said pawl from said ratchet when said shuttle is over the rolling apron in position to discharge the severed quantity of filler tobacco, and means for reciprocating said shuttle and turning it downward to discharge the filler tobacco therefrom, substantially as set forth. 4th. In a cigarette making machine, the intermittent tobacco feed mechanism, the cutter, and cigarette rolling mechanism, combined with the shuttle adapted to travel between said feed mechanism and said rolling mechanism and composed of the opposite plates forming the receptacle, one of said plates being hinged, means for opening and closing said hinged plate, the yielding plunger within said shuttle, means for locking the plunger as it recedes under the pressure of the tobacco, means for freeing the said plunger to eject the tobacco when in position over the rolling mechanism, and means for reciprocating said shuttle and turning it downward to deposit the filler tobacco, substantially as set forth. 5th. The feed belt and rollers, the pawl and ratchet mechanism for effecting the intermittent movement of said belt and rollers, the cutter for severing the charges of tobacco, the rod 99 and plate 96 connected with said pawl and ratchet mechanism for disengaging the pawl from the ratchet when in their upward position, the catch for retaining the said rod when its lower position, the rock-shaft carrying said catch and the stop connected with said catch, combined with means for rolling the cigarette, the shuttle adapted to travel between said feed mechanism and said rolling means and composed of the opposite plates forming a receptacle, the yielding plunger within and carried by said shuttle and having an arm in line with said stop, and adapted under the pressure of the tobacco fed into the shuttle to engage said stop and free said catch from said rod for stopping the feed, and means for reciprocating said shuttle and turning it downward to discharge the filler tobacco, substantially as set forth. 6th. In a cigarette making machine, the intermittent tobacco feed mechanism, and cigarette rolling mechanism, combined with the cutter, the shuttle adapted to reciprocate between said feed mechanism, and said rolling mechanism and to convey the separate charges of filler tobacco from the former to the latter, means for reciprocating said shuttle and turning it downward to discharge the filler tobacco therefrom, a yielding plunger within and carried by said shuttle, means for retaining the plunger at its inward position during the travel of said shuttle from the tobacco feed mechanism to the rolling mechanism, and means for freeing said plunger when the shuttle is turned downward, substantially as set forth. 7th. In a cigarette making machine, the intermittent tobacco feed mechanism, the cutter, and cigarette rolling mechanism, combined with the shuttle carriage, means for reciprocating the same from said feed mechanism to said rolling mechanism, the revoluble shaft mounted in said carriage and containing the cam-groove, the rigid stud entering said groove, and the shuttle mounted on said shaft, the yielding plunger in said shuttle, means for locking the plunger at its inward position, and means for freeing said plunger when the shuttle is in position over the said rolling mechanism, the said groove being of a form to turn the shuttle downward into a vertical position while over the rolling mechanism, and to restore the same to a horizontal position in line with the filler

tobacco fed by said feed mechanism, substantially as set forth. 8th. The tobacco feed mechanism having the travelling feed belt mounted on rollers, and the pressure roller above the forward roller upon which the feed belt is mounted, combined with the throat in line with said feed belt and the space between said rollers, mechanism for imparting to said feed belt and rollers an intermittent motion, the knife for severing the charges of filler tobacco, and being pivoted at one end, the cross-bar below the bed of the machine and carrying the two vertical rods, one acting as a guide for said knife and the other connected with the outer end of said knife, means for elevating and depressing the said cross bar and rods, the shuttle adapted to receive the severed charges of filler tobacco, and means for reciprocating said shuttle from the feed mechanism to the rolling mechanism, substantially as set forth. 9th. In a cigarette making machine, the apron for rolling the cigarette, the reciprocating roller for said apron, the reciprocating carriage carrying said roller, means for reciprocating said carriage, and means for forming the loop in said apron and effecting the necessary pressure thereon while the filler tobacco is being rolled, combined with the oscillating pneumatic wrapper carrier tube pivotally mounted at one end and thence extending substantially transversely toward said apron, the link connecting the outer end of said tube with said carriage to secure the movement of the former from the latter, the perforated nozzle mounted on the outer end of said tube and connected to travel therewith, the die for cutting the wrappers, air suction apparatus connected with said die and said carrier, means for depressing said nozzle to enable the latter to take the cut wrapper from said die and again depressing said nozzle to deposit the wrapper upon said apron, and means for cutting off the air from said die when the wrapper is to be taken therefrom by said nozzle and for cutting off the air from said nozzle when the latter is to deposit the cut wrapper upon said apron, substantially as set forth. 10th. In a cigarette making machine, the rolling apron, combined with the pneumatic wrapper carrier tube pivotally mounted at one end, and thence extending substantially transversely toward said apron, the perforated nozzle axially pivoted upon the outer end of said tube, the wrapper cutting die, means for horizontally oscillating said carrier between said die and apron, means for turning the said nozzle axially on the end of said tube to bring it into proper alignment with said die and apron, air suction apparatus connected with said die and said carrier, and means for cutting off the air from said die when the wrapper is to be taken by said carrier and for cutting off the air from the carrier when the latter is to deposit the cut wrapper upon said apron, substantially as set forth. 11th. In a cigarette making machine, the rolling apron, the cutting die, the air suction apparatus connected with said die, combined with the oscillating pneumatic wrapper carrier provided upon its outer end with a pivotally secured and vertically movable perforated nozzle, means for oscillating said carrier, means for depressing the perforated nozzle upon said die and upon the said apron, means for turning the said nozzle axially into alignment with said die and said apron, means for turning the said nozzle axially into alignment with said die and said apron, air suction apparatus connected with said carrier, and means for cutting off the air suction from said die when the carrier is to take the wrapper, and from the carrier when the apron is to receive the wrapper therefrom, substantially as set forth. 12th. In a cigarette making machine, the perforated rolling apron, and the wrapper table, combined with the pneumatic wrapper carrier having upon its outer end the perforated nozzle, means for causing said nozzle to convey the wrappers from said table to said apron, air suction apparatus connected with said carrier, the paste receptacle and intermittently travelling pasting belt connected with and carried by said carrier, the plunger also carried by said carrier, means for depressing the said plunger against said belt in advance of the carrier lifting the said wrapper and conveying it to the rolling apron, and means for releasing the suction from the said carrier when its nozzle is over the rolling apron, substantially as set forth. 13th. In a cigarette making machine the rolling apron, and the cutting die, combined with the pneumatic wrapper carrier adapted to travel between said die and said apron and having upon its outer end the perforated nozzle, air suction apparatus connected with said carrier and said die, the intermittently travelling pasting belt carried by said carrier, the plunger also carried by said carrier and adapted to depress the said belt against the edge of the wrapper on said die, means for depressing the said nozzle upon the wrapper, and mechanism for cutting off the air from said die when the wrapper is to be elevated by said carrier and for cutting off the air from said carrier when the apron is to receive said wrapper, substantially as set forth. 14th. In a cigarette making machine, cigarette rolling means, and the wrapper cutting die, combined with the oscillating pneumatic wrapper carrier having upon its outer end the pivotally secured perforated nozzle carrying upon one side a rack, the stationary gear at the retained end of said carrier, the pivoted lever carried by said carrier and having a rack at each end, one engaging the rack on said nozzle and the other the gear at the retained end of said carrier, means for oscillating said carrier between said die and said rolling means, and means for cutting off the suction from said carrier when said nozzle is over said rolling means, substantially as set forth. 15th. In a cigarette making machine, cigarette rolling mechanism, combined with the pneumatic wrapper carrier adapted to have an oscillating movement and provided upon its outer end with the perforated nozzle, the paste receptacle, the belt wheel therein,

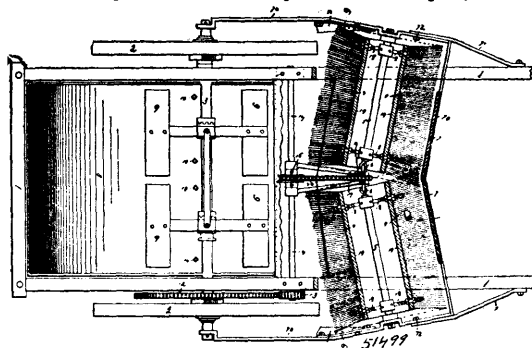
of said carrier, the plunger adapted to depress said belt upon the wrapper, mechanism intermediate the said wrapper carrier and said belt wheel whereby the latter is set in motion from said carrier, and means for cutting off the suction from said carrier when the latter is to deliver a wrapper to the rolling mechanism, substantially as set forth. 16th. In a cigarette making machine the wrapper table, and cigarette rolling mechanism, combined with the pneumatic wrapper carrier adapted to have an oscillating movement between said table and rolling mechanism and provided upon its outer end with the perforated nozzle, the paste receptacle, intermittently moving pasting belt and plunger connected with and carried by said carrier, means for depressing said plunger against said belt to press the latter against the wrapper, means for depressing said nozzle against the wrapper to lift the same and against the said rolling mechanism to deposit the same, means for oscillating said pneumatic wrapper carrier, means intermediate said wrapper carrier and said pasting receptacle for communicating motion to the pasting belt travelling through said receptacle, suction apparatus connected with said carrier, and means for cutting off the suction from said carrier when the latter is to deliver the wrapper to said rolling mechanism, substantially as set forth. 17th. In a cigarette making machine, the wrapper table, and cigarette rolling mechanism, combined with the pneumatic wrapper carrier adapted to have an oscillating movement and provided upon its outer end with the perforated nozzle, suction apparatus connected with said carrier, the stationary gear at the retained end of said carrier, the pinion and shaft and gear wheel on said carrier and engaged by said gearing, the shaft connected at its lower end by gearing to the shaft of the paste wheel and at its upper end provided with a ratchet, the gear wheel on said last mentioned shaft provided with a pawl to engage said ratchet and being itself in engagement with the said gear wheel, the pasting belt on said carrier and adapted to have an intermittent motion imparted to it from said gear wheels and shafts, the paste receptacle through which the pasting belt travels, the plunger also on said carrier and adapted to depress the belt upon the wrapper and means for cutting off the suction from said carrier when the latter is to deliver the wrapper to said rolling mechanism, substantially as set forth. 18th. In a cigarette making machine, the rolling apron, combined with the pneumatic wrapper carrier tube having upon its outer end the perforated nozzle and being at its inner end pivotally mounted within the air chamber, suction apparatus connected with said chamber, means substantially as described for depressing the said nozzle to lift the wrapper and then to deposit the same upon the rolling apron, and means for cutting off the suction from said carrier when the latter is to deliver the wrapper to said apron, substantially as set forth. 19th. In a cigarette making machine, the rolling table and rolling apron, combined with the reciprocating roller to which one end of said apron is secured, the shaft extending through said roller and provided within the same with the gear wheel, and the worm within the said roller at right angles to said shaft and in engagement with the said gear wheel, substantially as and for the purposes set forth. 20th. In a cigarette making machine the wrapper table and cigarette rolling mechanism, combined with a pneumatic wrapper carrier adapted to convey the wrapper from the wrapper table to the said rolling mechanism, suction apparatus connected with said wrapper carrier, the paste receptacle on said carrier and having at its lower end the belt wheel, the brush within said receptacle and having its bristles in near relation to said wheel, the pasting belt travelling over said wheel, a supporting wheel on said carrier and receiving the outer end of said belt, the plunger for depressing the said belt against the edge of the wrapper, mechanism for imparting to said belt an intermittent motion, and means for cutting off the suction from said carrier when the latter is over said roller mechanism, substantially as set forth. 21st. In a cigarette making machine, means for rolling the wrapper around the filler tobacco to form the cigarette, combined with the stationary and oscillatory pairs of knives for trimming the ends of the cigarette, the series of pairs of plates forming buckets mounted upon the shaft of said oscillatory knives, one plate of each pair being hinged and having a spring tension outward from the other plate, means for closing said hinged plate against the rolled cigarette to be trimmed, means for retarding the revolving motion of said buckets while the cigarette is being trimmed, and means for returning the oscillatory knives to their upward position without affecting the said buckets, substantially as set forth. 22nd. In a cigarette making machine, means for rolling the wrapper around the filler tobacco to form the cigarette, combined with the stationary and oscillatory knives for trimming the ends of the rolled cigarette, the series of buckets mounted upon the shaft of said oscillatory knives and being composed of plates, one plate of each pair being hinged and having a spring tension outward, means for rotating said shaft to cause said buckets to have an intermittent revolving motion in one direction and a slight motion in the opposite direction for the purpose of detaching the cigarette from the rolling apron, means for returning the oscillatory knives to their upward position without affecting the said buckets, and means for retaining the said buckets in stationary position while the ends of the cigarette are being trimmed, substantially as set forth. 23rd. In a cigarette making machine, the mechanism for rolling the wrapper around the filler tobacco to form the cigarette, combined with the stationary and oscillatory knives for trimming the ends of the cigarette, the series of buckets on the shaft of said oscillatory knives and being formed of pairs of plates, one plate of each pair being

hinged and having a spring tension outward, the finger adapted to close said hinged plates, means for stopping said buckets while the oscillatory knives travel onward to cut through the cigarette, means for returning said oscillatory knives to their upward position without moving said buckets and intermediate connections between said knives and the casing of said finger, whereby the latter is returned to its initial position by motion communicated to said casing from said knives, substantially as set forth. 24th. In a cigarette making machine, the mechanism for rolling the wrapper around the filler tobacco to form the cigarette, combined with the stationary and oscillatory knives for trimming the ends of the cigarette, the series of buckets mounted upon the shaft of said oscillatory knives and composed of the pairs of plates, one plate of each pair being hinged and having an outward spring tension, means for imparting to said series of buckets an intermittent motion in one direction with the oscillatory knives, means for returning the oscillatory knives to their upward position without disturbing said buckets, means for preventing the buckets from turning forward while the cigarette is being trimmed, means for closing the hinged plates of said buckets against the cigarette to be trimmed, and means for preventing said buckets from having reverse motion during the return of the said oscillatory knives to their upward position, substantially as set forth. 25th. In a cigarette making machine, the mechanism for rolling the wrapper around the filler tobacco to form the cigarette, combined with the stationary and oscillatory knives for trimming the ends of the cigarette, the series of buckets upon the shaft of said oscillatory knives and composed of the pairs of plates, one plate of each pair being hinged and having a spring tension outward, means for imparting movement to said buckets and oscillatory knives, means for arresting the movement of said buckets when the cigarette has reached the stationary knives without retarding the further movement of the oscillatory knives, and means for returning the oscillatory knives to their initial position without reversing the movement of the said buckets, substantially as set forth. 26th. In a cigarette making machine the mechanism for rolling the wrapper around the filler tobacco to form the cigarette, combined with the stationary and oscillatory knives for trimming the ends of the cigarette, the series of buckets upon the shaft of said oscillatory knives and composed of the pairs of plates, one plate of each pair being hinged and having a spring tension outward, the pivoted arm and cam for arresting the buckets when the rolled cigarette has reached the stationary knives in position to be trimmed by the oscillatory knives, and the pivoted plate which prevents the reverse rotation of the said buckets except when turned out of alignment therewith, substantially as set forth. 27th. In a cigarette making machine, the feed belt for filler tobacco, the rollers upon which said feed belt is mounted, the pressure roller above the foremost of said rollers, the intermeshing gear wheels upon the said pressure roller and the roller directly below the same, the gear wheel mounted upon the actuating shaft and engaging the gear wheel on the roller below said pressure roller, the ratchet on said actuating shaft, the toothed segment on said shaft and carrying at its outer end the pawl engaging said ratchet, the pivoted segment actuated from the driving shaft of the machine and engaging the first mentioned segment, the plate adjacent to said ratchet and capable of vertical movement, the arm secured to said plate and having a spring tension upward, the cam for depressing said arm and plate, and the rod connected with said arm, combined with the pivoted catch adapted to engage said rod at its outer end, the knife for severing the charges of filler tobacco, the shuttle in line with the feed belt and adapted to receive the filler tobacco, the yielding plunger within said shuttle and having an arm adapted to relieve the said catch from said rod, the rolling apron, means for reciprocating said shuttle from said feed mechanism to said apron and turning the same downward when over said apron, for the purpose of depositing the severed charge of filler tobacco upon the apron, substantially as set forth. 28th. In a cigarette making machine, the rolling apron secured at one end and the reciprocating roller to which the other end of said apron is connected, combined with the reciprocating carriage carrying the said roller, the auxiliary carriage mounted and adapted to slide upon the first-mentioned carriage and having the pressure blade, the rod and chain connected with said auxiliary carriage, the weight at the end of said chain, means for imparting a forward tension to said auxiliary carriage, the stop on said rod, and the lug on said main carriage and adapted to engage said stop and lift said weight after the said pressure blade has passed over the loop in the apron and said loop has been drawn down to size, substantially as set forth. 29th. In a cigarette making machine, the rolling apron secured at one end, and the reciprocating roller to which the other end of said apron is connected, combined with the main reciprocating carriage carrying said roller, the auxiliary carriage having the pressure blade and carried by and adapted to slide upon said main carriage, the rod and chain connected with said auxiliary carriage, the weight on the end of said chain, the coiled spring on said rod, the stop also on said rod, and the lugs on the main carriage at opposite sides of said stop, substantially as set forth. 30th. In a cigarette making machine, the rolling apron secured at one end, and the roller to which the other end of said apron is connected, combined with the main carriage carrying the said roller and adapted to reciprocate in line with the length of said apron, the auxiliary carriage mounted and adapted to slide upon said main carriage, and provided with the pressure blade, the

rod and chain connected with said auxiliary carriage, the spring on said rod, the stop also on said rod, the light weight on the end of said chain, the heavier weight receiving the said light weight and adapted to be taken up by the same when the light weight has been drawn upward, the casing having an air vent at its lower end and receiving said weights, and the lug on the main carriage adapted to contract with the said stop on the said rod and effect the lifting of the heavier weight after the loop in the rolling apron has been drawn down into size against the said pressure blade, substantially as set forth. 31st. In a cigarette machine, the rolling apron secured at one end, the reciprocating roller to which the other end of said apron is secured, and the main carriage supporting said roller, combined with the auxiliary carriage mounted and adapted to slide upon said main carriage and provided with the pressure blade, the weight and chain connected with said auxiliary carriage, means for propelling said carriages simultaneously until said blade has passed over the loop in the apron, and then propelling the main carriage alone until said loop has been drawn down to size, and then again moving the carriages together to effect the rolling of the cigarette, substantially as set forth.

No. 51,499. Self-Loading Street Sweeper.

(Balayeuse de rue à chargement automatique)



Andrew J. Reynolds, Worcester, Massachusetts, U. S. A., and Patrick Gorman, Montreal, Quebec, Canada, 2nd March, 1896; 6 years. (Filed 3rd November, 1895.)

Claim.—1st. In a self loading street sweeper, two jointed diagonal rotary brush sections, in combination with a centrally located, angular V-shaped dust deflector, as and for the purpose set forth. 2nd. The V-shaped dust deflector in combination with the rotary jointed brush, the portable dirt receptacle, with an extension track for said receptacle. 3rd. In a self loading street sweeper, the automatic shovels in combination with the detachable or portable dirt receptacle, as and for purpose set forth. 4th. In a street sweeping machine, the combination with a rotative centrally jointed diagonal brush, of the jointed adjustable guard-rails supporting the outer end of the brush shafts, and the curb stone-guards, for the purposes described. 5th. The combination with the rotary brush sections, the V-shaped deflector, the centrally jointed driving brush shaft, the centre bearing frame, journaled to swing on the intermediate shaft, and sprocket wheels, and chains for connecting the intermediate shaft and drive shaft as described. 6th. In a street sweeping machine, the combination of a portable dirt receptacle, the rotating main axle and drive wheels, mounted on said axle, a spring clutch for connecting and releasing said axle, for the purposes described. 7th. In a self loading street sweeper driving shaft six, so constructed that a similar brush may be placed thereon in combination with automatic dirt deflector forming straight central section of the loading brush for the purposes set forth. 8th. In a self-loading street sweeper, the combination with the frame, and two rotary brushes supported thereon and arranged at an angle to each other, and jointly connected at their inner ends to a driven shaft, in such a manner that the backs and bristles, at their inner ends, will intermesh at their front portions, of an apron or deflector supported in front of and in close proximity to the brushes, said deflector of angular shape in horizontal cross-sections, and of curved shape in vertical cross section with its upper end extending rearwardly over the brushes, and its end provided a flexible portion adapted to extend under the lower front part of the brushes, substantially as set forth. 9th. In a self-loading street-sweeper, sectional rotary brushes, so constructed that each section may be expanded by adjusting the nuts on the threaded bolts 18, to compensate for the wear of the brush material, without reducing their diameter, as shown and described, for the purposes set forth.

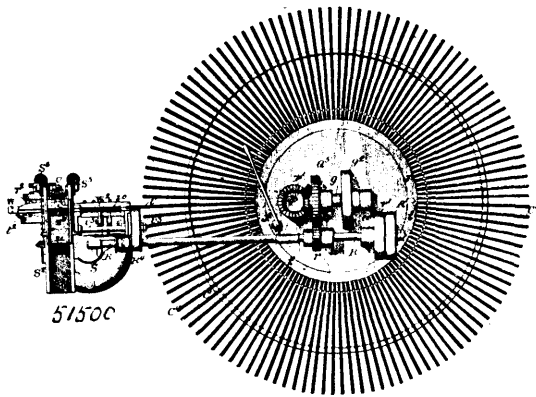
No. 51,500. Type Distribution Machine.

(Machine à distribuer les caractères.)

The Cox Type Setting Machine Company, assignees of Paul Fleming Cox, both of Chicago, Illinois, U.S.A., 3rd March, 1896; 6 years. (Filed 31st December, 1895.)

Claim.—1st. In a type distributing machine, the combination with means for distributing type, of means for discarding the spaces

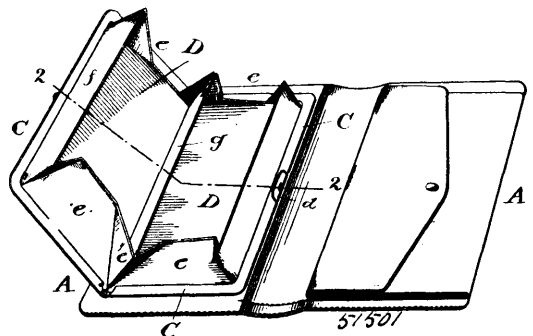
from the type, prior to its introduction into the distributing channels, substantially as described. 2nd. In a type distributing



machine, the combination with mechanism for discarding spaces from a line of type, of means for feeding type lines to said mechanism, substantially as described. 3rd. In a type distributing machine, the combination of means for separating lines of type from dead matter, with mechanism for knocking the spaces out of the separated type lines, substantially as described. 4th. The combination with mechanism for separating lines of type from dead matter, and for discarding the leads therein, with mechanism whereby the spaces are discarded from the separated lines, substantially as and for the purpose described. 5th. The combination of a type distributing mechanism, a dead matter galley, means for removing the leads and separating lines of type from the dead matter, and mechanism whereby the spaces are discarded from the type after they are taken from the galley but prior to their introduction into the distributing mechanism, substantially as described. 6th. In a type distributing machine, the combination of a type-holder having a series of vertical type holding channels, with a rotary series of test plates located below the holder, and means for moving said test plates successively beneath the channels of the holder, substantially as described. 7th. In a type distributing machine, the combination of a cylindrical channelled type holder, a series of test plates moving successively under the channels of the holder, and a series of type reservoirs or holders below and moving with the test plates, substantially as and for the purpose set forth. 8th. In a type distributing machine, the combination of a cylinder having a series of type holding channels, a disc, having a slot for each channel and a test plate in each slot, rotating beneath said cylinder, and a series of type receivers or holders below, and moving with the test plates, substantially as described. 9th. In a type distributing machine, the combination of a series of type holding channels, a series of test plates for separating the types, holders into which the distributed types are delivered, and pushers below the test plates adapted to forward the distributed types into the holders, substantially as described. 10th. In a continuously operating type distributing machine, the combination of a rotatable cylinder having a series of type holding channels, a disc carrying a series of test plates and means for continuously rotating said disc independently of the cylinder, with type cases hinged to the upper ends of the channels, whereby the cylinder can be stopped and the channels filled without stopping the distributing operation of the machine, substantially as described. 11th. The combination of the type holding cylinder rotatably mounted on a central support, a shaft journaled in the heads of the cylinder at one side of the support, a pinion on the upper end of said shaft meshing with a gear on the support, a second shaft journaled in fixed bearings on the support, but within the cylinder, having a pinion on its lower end meshing with said gear, and means exterior to the cylinder for driving said second shaft, with the rotatable disc carrying test plates, mounted on said support below the cylinder, mechanism substantially as described for rotating and locking said disc in relation to said cylinder operated from the lower shaft, and the rotatable support, below the disc, carrying type holders into which the distributed type is delivered, substantially as and for the purpose set forth. 12th. The combination of a galley to receive dead matter, a holder to receive lines of type from the galley, and means for transferring lines of type from the galley to the holder, with means for forwarding the lines of type in the holder, and mechanism for ejecting the spaces from the type in the holder, substantially as described. 13th. The combination of a galley, a lead case above the same, and a type line holder below the galley, with a plunger adapted to transfer lines of type into the holder, and the leads into the lead case, and pushers for moving the leads off the plunger into the case, substantially as described. 14th. The combination of a type-line holder, a series of space ejectors beside the holder having feelers on their ends adapted to press against the type in the holder, means for positively rocking any ejector whose feeler finds a space, and means for holding said ejectors out of the way of the type, while the latter is moving in the holder, substantially as set forth. 15th. The combination of a type-line holder, having a slot across which the lines of type pass, ejectors beside said slot

adapted to detect and eject spaces in the lines of type, and mechanism for operating said ejectors, substantially as and for the purpose specified. 16th. The combination of a galley having a slot near one end, and means for moving type forward in said galley, a holder beneath said slot adapted to receive lines of type from the galley, a plunger for lowering lines of type successively into the holder, and a stop bar adapted to prevent the forward movement of the type in the galley until the plunger rises above the type therein, for the purpose and substantially as described. 17th. The combination of a distributing machine having a series of type channels, and a hinged type case over each channel, with mechanism for separating type from dead matter and forwarding the type into said case as required, substantially as and for the purpose described. 18th. The combination of the type channels, and the type cases into which the type to be distributed is loaded, with a detachable false bottom applicable to the cases, and detachable therefrom to lower the type therein into the type channels, substantially as and for the purpose described. 19th. In a type distributing machine, the combination of a series of type holding channels, a series of type holding cases hinged to the upper ends of the channels, and means for distributing the type from the channels, substantially as and for the purpose described. 20th. In a type distributing machine, the combination of a plurality of series of type holding channels, each series adapted to receive type of a particular font, and a series of test plates for each series of channels, with means whereby the test plates in each series are successively registered with the corresponding channels, so that distribution of the types of different fonts takes place simultaneously, substantially as described. 21st. In a type distributing machine, the combination of a plurality of series of type channels for different sizes or styles of type, a distributed type receiver for each channel and the test plates intermediate the channels and receivers, substantially as and combination of a cylinder having distinct series of type channels in its periphery, each series adapted to receive a certain size or style of type, a series of distributed type receivers below the cylinder, and distinct series of test plates intermediate the channels and receivers, whereby more than one size or character of type can be distributed simultaneously at one operation of the machine, substantially as specified. 23rd. In a type distributing machine, the combination of a type holder having a number of type holding channels, the alternate channels being adapted to contain types of different fonts, with a corresponding number of test plates, the alternate test plates being adapted to pass types of different fonts, and means whereby the relative channels and test plates are successively caused to register for the purpose and substantially as described. 24. In a type distributing machine, a type holding cylinder having a plurality of concentric series of type holding channels, the several series being at different distances from the axis of the cylinder, with test plates for each series of channels, substantially as and for the purpose described. 25th. In a type distributing machine, the combination of a type holding cylinder having two concentric series of type holding channels, the respective series being at different distances from the axis of the cylinder, and one series of slots deeper than the others, with test plates for each series of channels, and guide pieces in the lower ends of the wider channels adapted to ensure register of the type with the test plates, substantially as described.

No. 51,501. Pocket Book. (Portefeuille.)

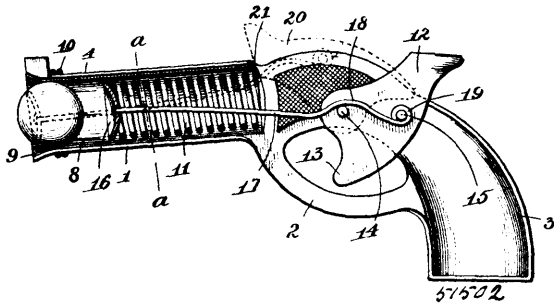


Lewis Cano and Harry Guggenheimer, both of New York, State of New York, U.S.A., 3rd March, 1896; 6 years. (Filed 3rd January, 1895.)

Claim.—1st. A pocket book provided with a folding pocket formed of pivoted jaws, folding side-gussets and straight end gussets separated by a central partition, substantially as and for the purpose specified. 2nd. A pocket-book provided with a folding pocket formed of pivoted jaws, folding side gussets and straight end gussets separated by a central partition, the bottom of each half of the pocket being connected to the folding frame by a bellows, substantially as and for the purpose specified. 3rd. A pocket-book provided with a folding pocket formed of pivoted jaws and a locking device for said jaws, and folding side-gussets and straight end-gussets separated by a central partition, substantially as and for the purpose specified. 4th. A pocket-book provided with a folding

pocket formed of pivoted jaws adapted to be opened in line with each other, a locking device for said jaws, and a pocket of comparatively small height formed of straight end-gussets, a central partition, and folding side-gussets which fold inwardly at the partition and corners, substantially as and for the purpose specified. 5th. A folding pocket, formed of a frame, composed of jaws pivoted at one end and provided with a suitable locking device at the other end, and of an open pocket provided with a central partition, straight end-gussets and side gussets, which fold inwardly at the corners and at each side of said partition so that separate compartments for bank-notes and coin are formed, substantially as and for the purpose specified. 6th. A folding pocket, formed of a frame, composed of jaws pivoted at one end and provided with a suitable locking device at the other end, and of an open pocket provided with a central partition, straight end-gussets and side gussets, which fold inwardly at the corners and at each side of said partition so that separate compartments for bank-notes and coin are formed, substantially as and for the purpose specified.

No. 51,502. Toy Pistol. (Pistolet jouet.)

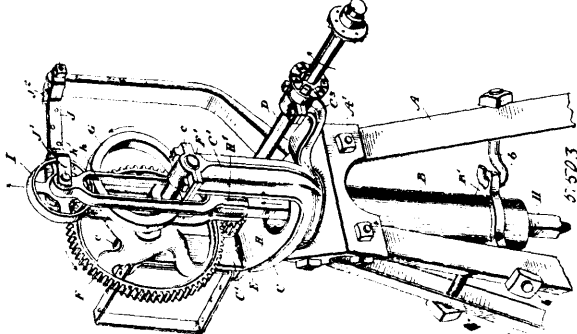


Walter Edwards Everitt, Buffalo, New York, U.S.A., 3rd March, 1896; 6 years. (Filed 12th December, 1896.)

Claim.—1st. The combination with a toy pistol for shooting marbles, of a barrel having a series of longitudinal slits in the end thereof, thereby leaving spring portions forming an integral part of the barrel, and adapting the muzzle to pick up a marble, substantially as described. 2nd. The combination in a toy pistol for shooting marbles, of a bell shaped muzzle consisting of a series of longitudinal springs forming an integral portion of the barrel and adapted for picking up a marble, and a spring surrounding and clamping the muzzle, substantially as described. 3rd. In a pistol, the combination with a holding case, comprising the barrel, handle and trigger-guard, of a spiral spring within the barrel and having its rear end supported at the rear end of said barrel, a concave ejecting plate at the front of said spring, a combined hammer and trigger pivoted to the holding case, and a bar connecting the concave ejecting plate and extending longitudinally through the spiral spring and connecting with a pin or projection on the hammer, said bar being bent to allow said pin to pass down below the pivotal centre on which the hammer turns when the hammer is thrown back, substantially as described. 4th. In a toy pistol, the combination with the pistol barrel provided with an opening at its rear end and a pivoted hammer, of a spiral spring located in the barrel and having its rear end extending beyond the opening at the top of the barrel so as to act as a cushion for the hammer to strike on, and means connecting the front of the spring with the hammer for the purpose described.

No. 51,503. Wind Mill Pumping Machine. (Moulin à vent.)

(Moulin à vent.)

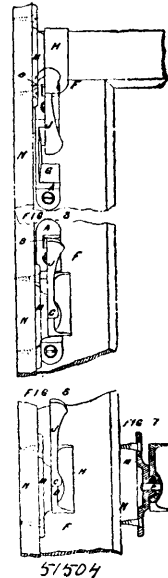


John W. Whitman, Howard, Ontario, Canada, 3rd March, 1896; 6 years. (Filed 6th December, 1895.)

Claim.—1st. The combination with the main shaft and driving pinion, and the counter shaft and gear wheel meshing with the pinion and an eccentric secured to the main shaft, of pump rod slotted upwardly, extending pieces through which the counter shaft

extends, a friction wheel pivoted in the upper ends of the extension pieces designed to co-act with the eccentric and means for adjustably supporting such friction, as and for the purpose specified. 2nd. The combination with the main shaft and driving pinion and the counter shaft and gear wheel meshing with the pinion and an eccentric secured to the main shaft, of a pump rod slotted upwardly extending pieces through which the counter shaft extends, a friction wheel pivoted in the upper ends of the extension pieces designed to co-act with the eccentric and forked arm J pivoted on the bracket C², and pin extending through the forked upper ends of the extension pieces and wheel, as and for the purpose specified.

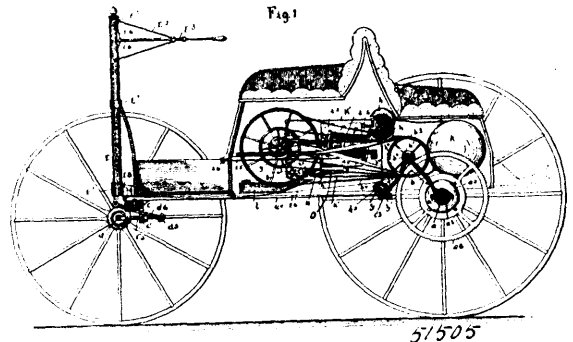
No. 51,504. Sash Fastener. (Arrête-croisée.)



George Menzies, Owen Sound, Ontario, Canada, 3rd March, 1896; 6 years. (Filed 9th November, 1895.)

Claim.—1st. In a window sash-fastener, plate A having a projecting ward B, and a concave seat G, substantially as and for the purpose hereinbefore set forth. 2nd. In a sash fastener, plate M having a solid boss pivot O, substantially as and for the purpose hereinbefore set forth. 3rd. In a sash fastener, eccentric D having a heel C and handle or lever J, substantially as and for the purpose hereinbefore set forth. 4th. A window sash fastener comprising plate A, plate M, and eccentric D, all formed, arranged and combined, substantially as and for the purpose hereinbefore set forth.

No. 51,505. Automobile Vehicle. (Voiture automobile.)

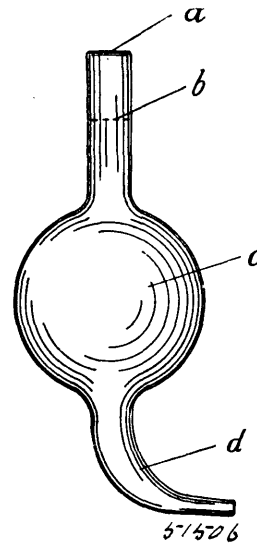


Charles E. Duryea, Peoria, Illinois, U.S.A., 3rd March, 1896; 6 years. (Filed 13th October, 1895.)

Claim.—1st. In an automobile vehicle a lever pivoted and connected to the guiding wheels in a manner adapted to control the direction of the carriage by movement in one plane and also pivoted to move in an intersecting plane and mechanically connected to the speed changing mechanism for the purpose of controlling both speed and direction with one and the same lever. 2nd. In an automobile vehicle, a steering lever mounted on pivots, and suitable frame work permitting movement in two intersecting planes and connected by suitable mechanical means to the steering wheels, and to the speed regulating mechanism in independent manners arranged

to cause movement of the handle in one plane to control the direction, and in the other, the speed of the carriage, 3rd. In an automobile vehicle, having a framework carrying the mechanism, a horizontal pivot intermediate the axles arranged to permit movement in a vertical plane of one of the axles, said axles being fixed with relation to each other in a horizontal plane and one of them having yoke or bifurcated ends forming pivot members to carry the steering wheels. 4th. In an automobile vehicle, separate pivots at one side of but near to the planes of the steering wheels around which the said wheels turn in steering, said pivots having their centre lines each inclined so as to intersect the plane of its wheel at or near the line of contact of the wheel with the ground. 5th. In an automobile carriage, steering wheels mounted on separate pivots near the plane of the wheels and cranks affixed to said pivots projecting rearwardly and inwardly and connected to a steering lever by suitable mechanism. 6th. In an automobile vehicle, a speed-controlling shaft and flexible connection passing from a roller on said shaft, around pulleys to the end of the steering lever, the whole arranged so that motion of the steering lever other than for steering, controls the said controlling shaft. 7th. In an automobile vehicle, one or more oiling devices for the motor and a stop-cock for use in starting or stopping the motor, said oiling devices and stop-cock being operated by the same means, as described and for the purpose set forth. 8th. In an automobile vehicle, a motor stopping device, and an oil cup closing device arranged to be operated by movement of the same bar. 9th. In an automobile carriage, using a hydrocarbon vapour motor, a starting crank for turning the motor shaft arranged to be within reach for use by the operator while in the act of mounting the carriage. 10th. In a pressure generator adapted for use in an automobile vehicle, a supply tank capable of holding high pressure but containing fluid not heated, a pipe or pipes leading therefrom to a generating coil where it is adapted to be exposed to heat, thence to a jet orifice, thence back to the tank at a higher level, said pipe being provided with needle cock for regulating and stop-cock for stopping the flow of liquid, said cocks being located between the generator coil and the tank. 11th. In a pressure generator adapted for use in an automobile vehicle, a supply tank capable of holding high pressure but containing fluid not heated, a pipe or pipes leading therefrom to a generating coil where it is adapted to be exposed to heat, thence to a jet orifice, thence back to the tank at a higher level, said pipe being provided with needle cock for regulating and stop-cock for stopping the flow of liquid and provided with lamp for heating said generator coil. 12th. In a pressure generator adapted for use in an automobile vehicle, a supply tank capable of holding high pressure but containing fluid not heated, a pipe or pipes leading therefrom to a generating coil where it is adapted to be exposed to heat, thence to a jet orifice, thence back to the tank at a higher level, said jet orifice opening into an open-mouthed tube arranged to lead the mixed and burning gases and air to the motor. 13th. In a pressure generator adapted for use in an automobile vehicle, a supply tank capable of holding high pressure but containing fluid not heated, a pipe or pipes leading therefrom to a generating coil where it is adapted to be exposed to heat, thence to a jet orifice, thence back to the tank at a higher level, said jet orifice opening into an open-mouthed tube arranged to lead the mixed and burning gases and air to the motor, said tube or enlargements thereof, having an escape valve controlled by a board on tube connecting with the return pipe substantially as and for the purpose described. 14th. In an automobile vehicle, a controlling shaft, or bar, links to transmit power from said shaft to the transmitting media between driving and driven shaft, said links and controlling shaft being so arranged that movement of the said shaft may leave all the transmitting media in operative or cause them to engage and disengage, one after another in a predetermined manner for the purpose of controlling the speed of the vehicle. 15th. In an automobile vehicle, speed varying media, link or connections from same to a controlling shaft or bar, cams, eccentrics or cranks on said bar, adapted to operate said links when bar is moved and means for moving said bar by the operator. 16th. In an automobile vehicle, speed varying media, links or connections from same to a controlling shaft or bar, cams, eccentrics or cranks on said bar, adapted to operate said links when bar is moved and means for moving said bar by moving a lever or crank near the operator. 17th. In an automobile vehicle, speed varying media, links or connections from same to a controlling shaft or bar, cam, eccentrics or cranks on said bar, adapted to operate said links when bar is moved and means for connecting said bar or shaft to the steering lever in such a manner that the speed may be controlled by movement of the lever in a plane intersecting the plane of movement for steering. 18th. In an automatic vehicle, steering wheels mounted on separate pivots near the plane of the wheels and cranks affixed to and projecting from said pivots in such direction that each crank lies in a vertical plane arranged to intersect the plane of its steering wheel in front of the centre of the said wheel. 19th. In an automobile vehicle, a speed varying mechanism, consisting of means for changing the relative motions of driving and driven shafts by varying the position of a controlling shaft or bar and thus causing a different transmitting couplet to transmit the power. 20th. In an automobile vehicle, a shaft, two or more connections working on the shaft at one end and adapted at the other end, to cause the action of the power transmitting medias, said connections and the shaft being so arranged with respect to one another that movement of the shaft will cause but one connection to act at a time.

No. 51,506. Contrivance for Rinsing the Cavities of the Nose and Throat. (*Appareil pour nettoyer la gorge et le nez*)

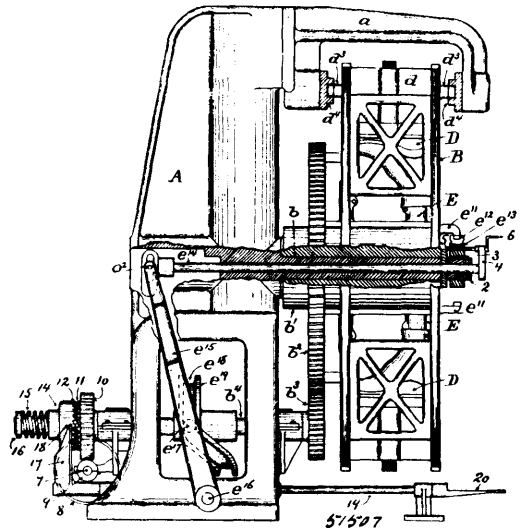


Alphons Rapp of Weiler, Bavaria, Germany 3rd March, 1896; 6 years. (Filed 30th November, 1895.)

Claim.—1st. In a contrivance for rinsing the cavities of the nose and throat the combination of a bulge-shaped receptacle *c*, the upper open, straight tube *a*, and the lower bent, somewhat tapering open tube *d*, as described.

No. 51,507. Sole Laying Machine.

(*Appareil pour poser les semelles.*)



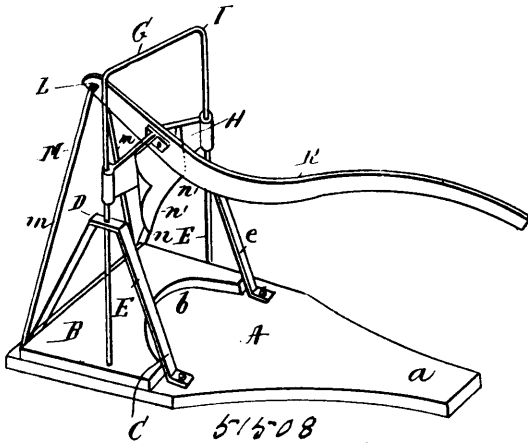
Erastus E. Winkley, Lynn, Massachusetts, U.S.A., 3rd March, 1896; 6 years. (Filed 10th February, 1896.)

Claim.—1st. In an organized sole laying machine, the combination of a rotary carrier, a series of pressing forms *n* mounted upon the carrier, a series of shoe supporting jacks, associated respectively with the pressing forms mounted upon the carrier and movable transversely to the plane of its rotation, and connected mechanisms, operating automatically to produce compression and clearance between each form and its associating jack, and to rotate the carrier and actuate the jacks, whereby one jack is presented to the operator in convenient position for the removal of a shoe therefrom, while the other jacks remain under pressure, substantially as described. 2nd. In an organized sole laying machine, the combination of a rotary carrier, a series of pressing forms mounted upon the carrier, a series of shoe supporting jacks, associated respectively with the pressing forms, mounted in suitable transverse guide ways upon the carrier, along which they are free to reciprocate transversely to the plane of the rotation of the carrier, said guide ways, and connected

mechanisms operating automatically to produce compression and clearance between each form and its associated jack, and to rotate the carrier and actuate the jacks, whereby one jack is presented to the operator in convenient position for the removal of a shoe therefrom while the other jacks remain under pressure, substantially as described. 3rd. In a sole laying machine, the combination of a rotary carrier, a series of pressing forms mounted upon the carrier, a series of shoe supporting jacks, associated respectively with the pressing forms, mounted upon the carrier and movable transversely to the plane of its rotation, means for producing compression and clearance between each jack and its associated form, means for rotating the carrier, and mechanism common to all the jacks for independently actuating each jack, substantially as described. 4th. In an organized sole laying machine the combination of a rotary carrier, a series of pressing forms mounted upon the carrier, a series of jacks mounted upon the carrier each arranged to co-operate with a form and movable out of operative relation thereto, and connected mechanisms, operating automatically to produce compression and clearance between each form and its associated jack, to rotate the carrier, and to actuate the jacks, substantially as described. 5th. In a sole laying machine, the combination with a suitable support therefor, of a rotating frame, a series of shoe supporting jacks mounted upon said frame, a series of movable pressing forms also mounted upon said frame, a series of springs, acting upon the pressing forms and connected with a fixed portion of the frame, for bringing each form in contact with a last placed upon its associated jack, cam ways secured to said support, and cam rolls connected with said pressing forms acting with the cam ways to bring each form into a position of clearance, substantially as described. 6th. In a sole laying machine, the combination with a suitable support therefor, of a rotating frame, a series of shoe supporting jacks mounted upon said frame, a series of movable pressing forms also mounted upon said frame, a series of springs arranged to bring each form in contact with a last placed upon its associated jack, and mechanism common to all the forms for raising each form independently into a position of clearance, substantially as described.

No. 51,508. Can Opener.

(Machine à ouvrir les boîtes métalliques.)



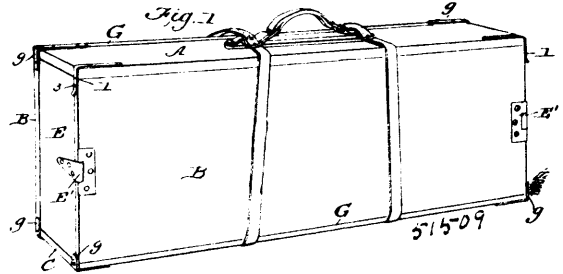
Abraham Calvert Scarr, Hamilton, Ontario, Canada, 3rd March, 1896; 6 years. (Filed 18th January, 1896.)

Claim.—1st. In a can opener, the combination with a base, of a vertical frame or support, a sliding cross-head mounted thereon, and provided with a cutting blade or knife, and means for lowering and raising said cross-head, substantially as shown and described. 2nd. In a can opener, the combination with a base plate of a vertical frame or support, a vertical movable cross-head mounted thereon, and a downwardly depending knife or blade secured thereto, said blade or knife being provided with a downwardly projecting point and with curved and inclined sides, substantially as shown and described. 3rd. In a can opener, the combination with a base plate, of a vertical frame or support, a vertically movable cross-head mounted thereon, and a downwardly depending knife or blade secured thereto, said blade or knife being provided with a downwardly projecting point and with curved and inclined sides, and means for operating said sliding cross-head, comprising a lever, which is secured thereto, and the outer end of which is connected with a support, substantially as shown and described. 4th. In a can opener, the combination with a base plate, of a vertical frame or support, a vertically movable cross head mounted thereon, and a downwardly depending knife or blade secured thereto, said blade or knife being provided with a downwardly projecting point and with curved and inclined sides, and means for operating said sliding cross head, comprising a lever, which is secured thereto, and the outer end of which is connected with a support, and said base plate being provided with a semi-circular cavity or recess, adapted to receive a can, substantially as shown and described. 5th. In a can opener, the combination with a base plate provided with a supplemental

plate, having a cavity or recess formed in the front thereof, of a vertical support or frame comprising side bars, on which is mounted a sliding cross-head, a cutting blade or knife secured to said cross-head, and provided with a downwardly depending point, and inclined and curved sides, and a lever connected with said cross-head for operating the same, substantially as described.

No. 51,509. Convertible Table and Kit Case.

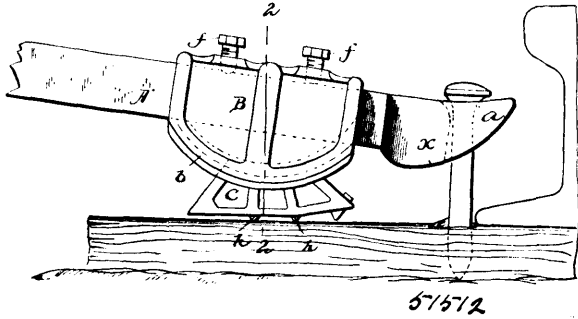
(Table et nécessaire de toilette combinés.)



William Edwards Baxter, Frankfort, Kentucky, U.S.A., 3rd March 1896; 6 years. (Filed 18th January, 1896.)

Claim.—1st. A convertible table and kit case having a sectional top and an elevating support having legs and top braces secured at one end to one of the legs, interlocked with the adjacent leg and forming underbraces for the sectional top and fastenings by which to secure the table top to the support, substantially as set forth. 2nd. A support for a table top comprising the legs having near their upper ends downwardly facing seats and the top braces jointed at one end to one of the legs and provided at their free ends with tongues or portions engaging the downwardly facing seat of the next leg, substantially as set forth. 3rd. A support substantially as described consisting of the several sections each composed of a leg, a strut brace jointed at one end to the leg, and the top brace jointed at one end to the leg and interlocking parts between the ends of the braces of one leg and the adjacent leg including vertically opening seats on the leg for engagement by the interlocking parts of the braces substantially as described and shown. 4th. A support substantially as described, composed of the legs having near their upper ends downwardly opening seats and near their middles upwardly opening seats the top braces jointed to the legs and provided with tongues or portions engaging the downwardly opening seats, and the strut braces jointed to the legs and engaging the upwardly opening seats, substantially as set forth. 5th. In an apparatus, substantially as described, the support having legs provided with mortises and with spring plates overlapping such mortises and forming therewith seats and the braces jointed at one end to the legs and engaging the seats of an adjacent leg, substantially as set forth. 6th. The combination with the top, of the support comprising legs the top braces jointed near one end to one of the legs and interlocking with an adjacent leg and fastenings by which to secure the said brace to the top, and the strut braces extending between the adjacent legs, substantially as set forth. 7th. The combination with the top having sockets in its underside, the support having the legs fitted at their upper ends to said sockets and provided near said ends with downwardly opening seats, the top braces engaging in such seats and fastenings by which to secure such braces to the table top, substantially as set forth. 8th. A support substantially as described composed of sections each consisting of a leg, the top brace jointed to said leg near one end thereof and the strut brace jointed to said leg near the opposite end thereof, such braces being foldable longitudinally alongside the leg, substantially as set forth. 9th. A table top combined with a support having legs and top braces, the top braces being interlocked with the legs and movable upwardly into such interlocking engagement and fastenings securing the braces directly to the table top whereby to secure the same in interlocked engagement and thus hold the support to the table top, substantially as set forth. 10th. The combination of the sections hinged together at the inner sides of their meeting edges whereby they may be adjusted flat to form a table top or at angles to each other to form a box and forming corner recesses in the latter adjustment, and strips fitted removably in said corner recesses, substantially as and for the purposes set forth. 11th. A convertible table and box or case comprising the jointed sections, the filling strips fitting between the jointed edges of said sections, the metal spring pieces secured to the ends of said strips and forming clamps for binding such strips in place, substantially as set forth. 12th. In a convertible table, and the combination with the sections forming the top of the removable filling strips having metallic ends forming corner and spring fastening pieces for the box, substantially as set forth. 13th. In an apparatus substantially as described, the combination of the upright leg having a vertically opening side seat, and the strut brace having its end formed to fit flat against said leg and provided with tongues or portions engaging the seat of and interlocking with the leg, substantially as set forth. 14th. A table having a top formed in sections, a brace having crossed sections and fastenings by which such braces may be secured flat against the top sections and lapping the joints thereof,

Claim.—In a spike-pulling instrument, the combination with the lever of the tubular shoe to have a sliding fit upon the lever and

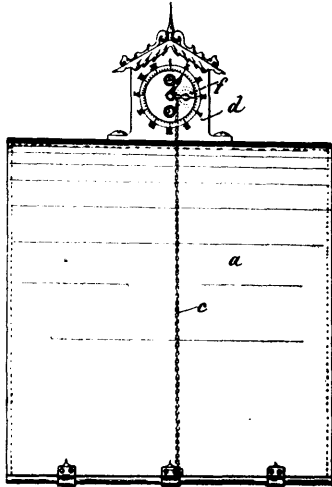


57512

provided at its bottom with the opposing depending cheek-pieces having the longitudinally ranging arc-formed grooves which open to the end of the cheek-pieces, the set screws passing through the wall of the tubular shoe against the lever for confining the shoe adjustably at any desired point along the length of the lever, and the base C, having sidewise thereof the arc-formed ribs engaging, for a combined rocking and sliding bearing, in the said grooves, all substantially as described and shown.

No. 51,513. Apparatus for Feeding Animals.

(Appareil pour nourrir les animaux.)



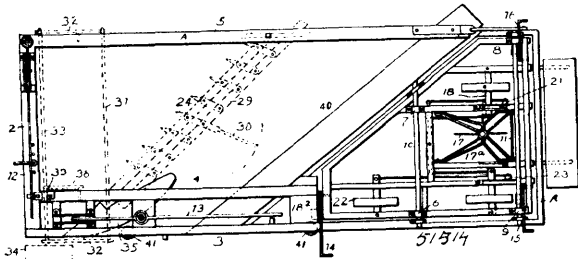
57573

Hein Warner, Hamburg, Germany, 3rd March, 1896; 6 years (Filed 30th January, 1896.)

Claim.—1st. An apparatus for feeding animals which automatically releases the food at predetermined times, characterized by a feed box provided with a movable bottom which can be automatically opened at certain pre arranged times, by clockwork mechanism, constructed and arranged substantially as hereinafore described. 2nd. An apparatus for feeding animals consisting of a box *a*, provided with a hinged bottom *b*, having a chain *c* attached to it, said chain being wound on a drum *f*, on the alarm spindle, *t* of a clock *d* surmounting the box, constructed and arranged, substantially as hereinafore described.

No. 51,514. Road Grader.

(Appareil de régalage pour routes.)



51514

John Henermann, Oak Park, Illinois, U.S.A., 3rd March, 1896; 6 years. (Filed 6th February, 1896.)

Claim.—1st. In a grading machine comprising a main frame, supported in front on caster wheels, the rear portion being carried by a truck disposed within the limits of the main frame and the wheels of the truck supported on oscillating axles whose movements are governed by lever mechanism as described, said truck frame being vertically adjustable in relation to the main frame, the up-bearing levers and caster controlling levers for elevating and depressing the main frame, and a scraper beam attached to said frame, substantially as described. 2nd. In a grading machine, a main frame supported in front on caster wheels, the rear portion being carried by a truck disposed within the limits of the main frame and the wheels of the truck arranged on oscillating axles whose movements are governed by lever mechanism as described, said truck frame being vertically adjustable in relation to the main frame by the operation of up-bearing levers in conjunction with the caster controlling levers to elevate or depress the main frame, an advance plough and oblique breaker beam attached to said frame, a series of oscillating plough points or stems projecting in front of said breaker, in combination with the main plough, all arranged substantially as and for the purposes herein set forth. 3rd. In a grading machine as described, a main frame supported rearwardly by a truck frame, freely movable within the limits of the main frame said truck frame having oscillating axles controlled by lever mechanism, the spider frame pivotally and centrally mounted in said truck frame and carrying the vertical axial stem of a rotary coultter disc governed by a rudder lever and operative independently of or in conjunction with the truck wheels, substantially as and for the purpose herein set forth. 4th. In a machine of the class described, the combination with a truck frame having supporting and carrying wheels, of an independently movable scraper frame mounted thereon, and having the scraper arranged diagonally thereof in front of the truck wheels and extending beyond the truck frame on the furrow side, and a land-side also external to the truck frame and means for raising and lowering the scraper frame with reference to the truck frame, substantially as described. 5th. In a machine of the class described, the combination with a wheeled truck of substantially triangular form, a scraper frame having a scraper arranged diagonally thereof, the truck being adapted to enter the scraper frame and support the same, guides on the truck frame adapted to embrace the members of the scraper frame and lifting levers on the truck frame adapted to bear on the scraper whereby to elevate the latter, substantially as described. 6th. In a machine of the class described, the combination with a wheeled truck, of a scraper frame mounted thereon, said frame being substantially rectangular in form, and the frame timbers being loosely connected at the rear over the heel of the scraper, whereby to permit a tilting of the scraper frame upon the truck, substantially as described. 7th. In a machine of the class described, the combination with a scraper frame having a scraper, a coultter and land-side, of a combined gauge and carrying wheels arranged at the front corners of said frame, substantially as described. 8th. In a machine of the class described, the combination with a wheeled truck having beel crank levers pivotally connected thereon, of a scraper frame adjustably mounted upon the truck frame, and said levers being adapted to bear on opposite sides of said frame whereby the latter may be lifted vertically or tilted at will into an oblique position, substantially as described. 9th. In a machine of the class described, the combination with a wheeled truck, of a scraper frame mounted thereon and adjustable with relation thereto, said scraper frame having a gauge wheel at its outer front corner, and a plough adapted to clear a furrow in advance of said gauge wheel, substantially as described. 10th. A machine of the class described, comprising a rectangular main frame, a scraper arranged and secured diagonally thereto, a truck frame of substantially triangular form, guides on the truck frame adapted to embrace the members of the scraper frame, means for elevating the latter, and three wheels pivotally supported upon the truck frame and operated, substantially as described. 11th. In a grading machine as described, the combination of a gauge wheel having its shaft secured in arms at the front of the main frame, the curb end of said shaft having a wheel thereon adapted to travel on the street curb and limit the working depth of the machine, and two friction rollers placed upon the frame to run alongside the curb, substantially as described. 12th. In a grading machine as described, the combination with the main frame and truck frame adjustably secured together, an adjustable gauge wheel at its outer front corner, and a wheel adapted to travel on the street curb and supported upon two L-shaped arms pivoted upon opposite sides of the frame, the short of which carry the curb-wheel axle and the long arms connected by a handle rod and a link arm, and segment standard to adjust the said axle and curb-wheel, substantially as described.

No. 51,515. Handle Bar for Bicycles.

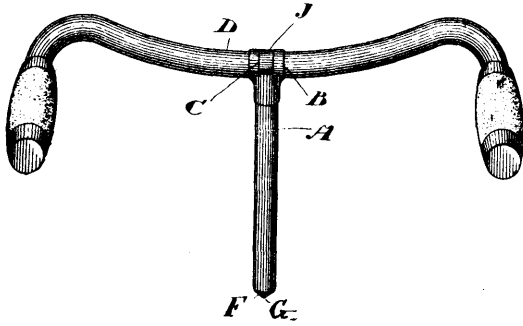
(Barre de poignée ajustable pour bicycles.)

Edward Mushing and George Gilbert, both of West Orchard, Coventry, England, 3rd March, 1896; 6 years. (Filed 6th February, 1896.)

Claim.—1st. In a bicycle, a handle bar stem having a short transversely slotted tube formed on or connected to its upper end, in combination with a handle bar passing through the tube and through a ring filling the slot in the tube, and provided with means whereby it may be caused to jamb the handle bar against the tube, substan-

tially as and for the purpose specified. 2nd. In a bicycle, the handle bar stem A, and the short tube B, formed on or con-

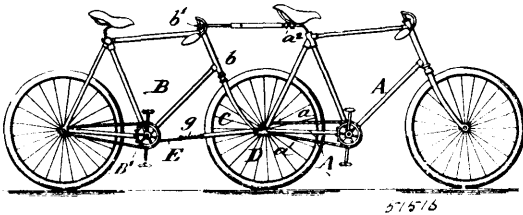
a stop, a soap dish pivoted at one side of its centre in the outer ends of the members of the supporting arm, the inner heavier side



nected thereto and slotted at C, in combination with the handle bar D, ring J, stem E, plug F, and nut G, substantially as and for the purpose specified. 3rd. In a bicycle, the handle bar stem A, and the short tube B, formed on or connected thereto and slotted at C, in combination with the handle bar D, ring J, stem E, plug F, nut G, and plug H, fitting the neck I of the ring J, substantially as and for the purpose specified.

No. 51,516. Tandem Attachment for Bicycles.

(Attache pour tricycles.)



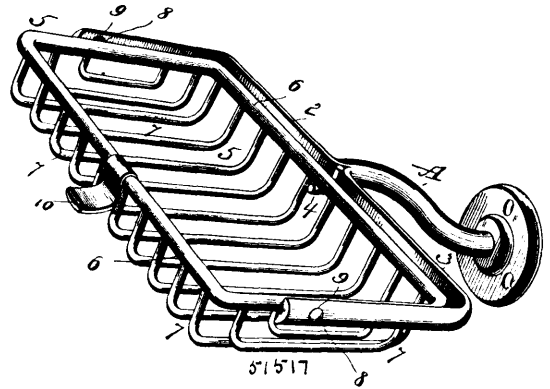
Max Jacobson, New York, State of New York, U.S.A., 3rd March, 1896; 6 years. (Filed 6th February, 1896.)

Claim.—1st. A three-wheeled tandem-cycle, consisting of an ordinary safety-bicycle, a tandem-attachment having a single wheel and provided with a forwardly-extending coupling-device, at the upper part, and with a coupling-attachment at the lower part thereof, and means for detachably connecting the couplings to the rear-work of the main bicycle, substantially as set forth. 2nd. A three-wheeled tandem-cycle, consisting of an ordinary safety-bicycle, a tandem-attachment having a single wheel and consisting of an ordinary frame provided with a seat and handle-bar, a forwardly-extending coupling-device at the upper part of the auxiliary frame, a forwardly-extending coupling-attachment at the lower part of the frame, a pedal shaft and pedals, sprocket-mechanism between the pedal shaft and the wheel of the tandem-attachment, and means for detachably connecting the couplings of the tandem-attachment with the rear-fork of the main-bicycle, substantially as set forth. 3rd. A three-wheeled tandem-cycle, consisting of an ordinary safety-bicycle at the front of the same, an ordinary safety-bicycle, without the front wheel, at the back of the same and supported by the rear-axle thereof, by means of its front-fork, and a pivot-jointed coupling-attachment between the front and rear-frames, substantially as set forth. 4th. The herein-described lower coupling-attachment for cycles, consisting of a fork provided at the ends of its arms with pivoted plates having inwardly-extending lips, and means for pivotally connecting the other end with the pedal-shaft, substantially as set forth. 5th. The herein-described lower coupling-attachment for cycles, consisting of a fork provided at the ends of its arms with pivoted plates having inwardly-extending lips, a link pivoted to the fork, a clip hinged to the link, and springs connecting the link with the fork, substantially as set forth. 6th. The herein-described upper coupling-device for cycles, consisting of telescoping sections, a socket-piece provided with a set-screw and pivoted to one of the sections, and a plate having an opening and pivoted to the other section, substantially as set forth.

No. 51,517. Soap Holder. (Porte-savon.)

Leo Frank, New York, assignee of Otts Henry Huebel, Brooklyn both in New York, U.S.A., 3rd March, 1896; 6 years. (Filed 20th January, 1896.)

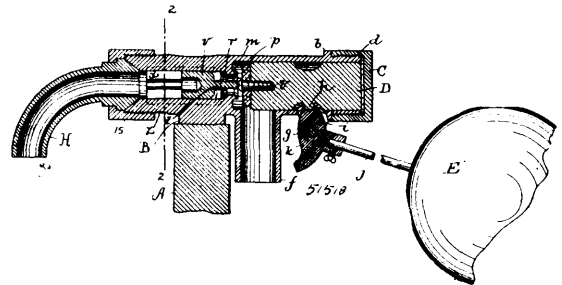
Claim.—1st. As an article of manufacture, a soap holder comprising a soap dish pivotally supported at one side of its centre and capable of being turned outward half way over, a stop arranged in position to receive and support the heavier side of the dish at or near its centre, and prevent its being tilted beyond a certain predetermined point in one direction, substantially as set forth. 2nd. As an article of manufacture, a soap holder comprising a supporting arm which latter is divided to form two members and provided with



normally resting on the stop and the outer edge adapted to be depressed by means of which the dish is tilted, substantially as set forth.

No. 51,518. Ball Cock.

(Fermeture automatique de robinet modérateur.)

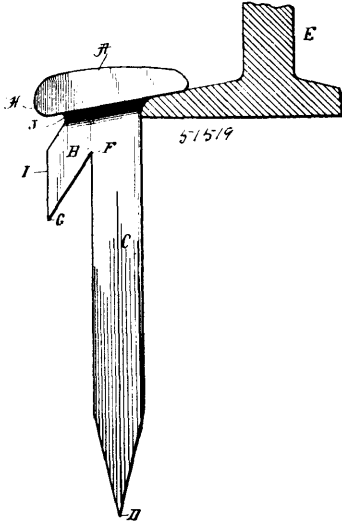


Thomas W. Ryan, Concord Junction, and James Henry Walsh, Boston, both in Massachusetts, U.S.A., 3rd March, 1896; 6 years. (Filed 21st January, 1896.)

Claim.—1st. In an automatic shut-off ball cock, a body provided interiorly with a valve seat, between its supply and discharge ports, a sliding float-actuated valve for engaging said seat and an automatic pressure actuated valve for shutting off said supply when the float actuated valve is withdrawn. 2nd. In an automatic shut-off ball-cock, a body provided with a valve seat between its supply and discharge, a sliding float actuated valve for engaging said seat, said valve being adapted to be withdrawn through the end of said body and a removable cap closing said body end. 3rd. In a valve of the class described, a body provided interiorly with a valve seat between its supply and discharge, a sliding valve in said body adapted to be closed by the supply pressure, and a float actuated valve engaging said pressure valve, all being combined and arranged to operate, substantially as specified. 4th. In an automatic shut-off ball cock, a body provided interiorly with a double valve seat between its supply and discharge, a valve fitted to be forced into engagement with said seat by supply pressure and provided with a spindle projecting through said seat, a valve actuated by the ball float having its head in engagement with said spindle whereby the pressure valve is normally unseated. 5th. An automatic shut-off ball cock, comprising a body provided interiorly with a valve seat, a valve fitted to slide in said body and engage said seat, said body being ribbed around said valve, and a float actuated valve normally unseating said first valve. 6th. In an automatic shut-off ball valve, a body provided interiorly with a valve seat, a valve for engaging said seat on the supply side, a float actuated valve for engaging said seat on the discharge side, said valves being normally in contact and operated simultaneously by the action of the float, substantially as described. 7th. In an automatic shut-off ball cock, a body provided interiorly with a valve seat, a float actuated valve for engaging said seat and adapted to be withdrawn from the inner end of said body, a screw cap closing said end, a pressure actuated valve for engaging the opposite side of said seat when the float actuated valve is withdrawn, the chamber of said pressure valve being grooved, substantially as specified. 8th. In an automatic shut-off ball cock, the body B provided interiorly with the valve seats *m, r*, in combination with the pressure valve *v*, having a spindle *t*, projecting through said seats, the float-actuated valve D normally engaging said spindle, substantially as set forth. 9th. In an automatic shut-off ball cock, the body B provided with the valve seat between its supply and discharge, the float actuated valve D removable through the end of said body, the screw cap C closing the said end and a pressure actuated shut-off valve normally held open by the valve D. 10th. In an automatic

shut-off ball cock, the body B provided interiorly with the valve seats and longitudinal ribs *x*, in combination with the shut-off valve *r*, having the spindle *t*, the float actuated valve D, in engagement with said spindle and removable through the end of said body, and the screw-cap C closing said end, substantially as and for the purpose set forth.

No. 51,519. Railroad Spike. (*Chevillette de chemin de fer*)

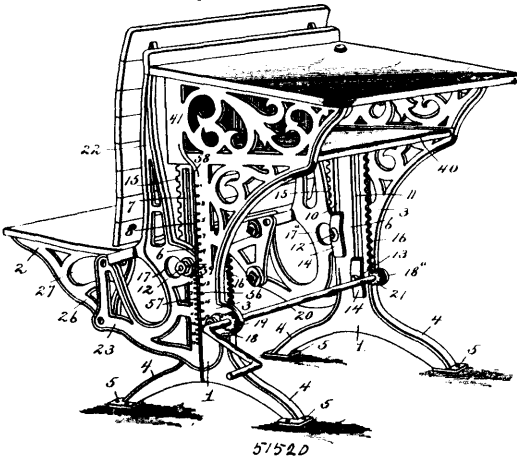


George Gray Roderick and Allan Benny, both of Bayonne, New Jersey, U.S.A., 3rd March, 1896; 6 years. (Filed 6th February, 1896.)

Claim.—1st. A spike consisting of a head and shank, and a hold-fast or brace secured to the rear side of the shank, entirely below the head and extending downward along the rear face of the shank, whereby the shank is reinforced or strengthened for a distance below the surface line of the tie when the spike is driven thereinto, the rear face of the hold-fast being parallel with the line of the shank, and there being an angle between the rear face of the shank, and the lower inner face of the hold-fast, whereby the lower end of the latter is pointed, substantially as set forth. 2nd. A spike having its shank provided at its upper end and on its rear face, with a brace or hold-fast, the same being entirely below the head, and a head which is continued across the top and jointed to the top of both the shank and the hold-fast, and is extended to the rear beyond the rear edge of the hold-fast, substantially as and for the purposes set forth. 3rd. A spike consisting of a shank C, a hold-fast or brace secured to the upper rear face or side of the shank and extending downward and backward therefrom at an angle approximating thirty degrees, the hold-fast being sharpened at its lower end, and having its rear face in line with the shank, and a head A, which extends across the top of the shank, and of the hold-fast, and beyond or in rear of the rear face of the hold-fast, substantially as set forth.

No. 51,520. Desk and Seat for Schools.

(*Pupitre et siége d'école.*)



James J. Baskerville, Duluth, Minnesota, U.S.A., 4th March, 1896; 6 years. (Filed 6th February, 1896.)

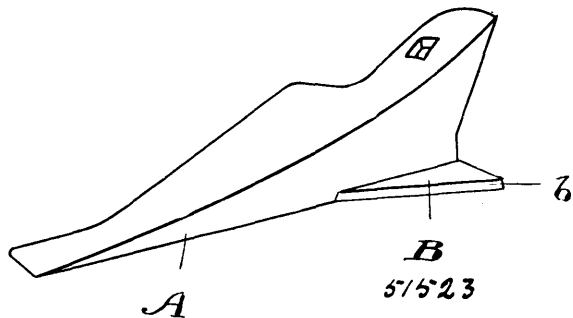
Claim.—1st. A school desk and seat support having a stationary standard provided with a rack, and a bracket mounted to slide vertically upon said standard and provided contiguous to said rack with a bearing, a pinion or spur-wheel removably mounted in said bearing and provided with means whereby it may be rotated to cause vertical movement of said bracket, and locking devices for securing the bracket at the desired adjustment, substantially as specified. 2nd. A school desk having side castings including stationary standards provided with racks, seat and desk-brackets mounted to slide vertically upon said standards and provided respectively contiguous to said racks with transversely-aligned openings or bearings, a crank-shaft having spaced pinions or spur-wheels adapted to be arranged respectively in the transversely-aligned openings or bearings to engage the corresponding racks on the standards, whereby the corresponding opposite brackets may be simultaneously adjusted, and means for locking the brackets at the desired adjustment, substantially as specified. 3rd. A school desk and seat support having a stationary standard, seat and desk-brackets mounted for independent vertical adjustment upon said standard, and comparative scales on said brackets arranged in operative relation with pointers on the standard, whereby a corresponding relative adjustment of the brackets may be attained, substantially as specified. 4th. A school desk and seat support having a stationary standard provided with grooves and contiguous parallel slots, desk and seat-brackets provided with tongues fitting in said grooves, bolts engaging openings respectively in said brackets and extending through the slots, and bowed friction plates interposed between the heads of the bolts and the contiguous surface of the standard, to temporarily hold the brackets at the desired adjustment, substantially as specified. 5th. In a school desk and seat support, a seat-bracket provided with spaced studs, one of which forms a journal and the other a guide and stop-pin, and a seat-arm mounted upon said journal and having a segmental slot receiving the guide and stop-pin, substantially as specified. 6th. In a school desk and seat support, a seat-bracket provided with upper and lower lateral studs, a seat-arm fulcrumed upon one of the studs, and a friction device arranged in contact with the arm contiguous to its fulcrum, said arm having a segmental slot to receive the other stud and being limited in movement thereby, substantially as specified. 7th. In a school desk and seat support, a seat-bracket having a lateral journal, a seat-arm fulcrumed upon said journal, a friction disc arranged in contact with one surface of the seat-arm and held from rotary movement, a bolt extending axially through the journal and said friction disc, and a spring-plate interposed between the friction disc and the nut of said bolt, substantially as specified. 8th. In a school desk and seat support, a seat-bracket, a seat-arm fulcrumed upon the bracket, and a stationary cushioned guide and stop-pin on the bracket extending through a segmental slot in the arm, substantially as specified. 9th. In a school desk and seat support, a seat-bracket, a seat-arm fulcrumed upon the seat-bracket, and a spring-actuated friction plate arranged in contact with said arm and provided with adjusting devices, substantially as specified. 10th. The combination with a desk-bracket, and a desk-top having a dovetailed groove, of an expanding dovetailed tongue adapted to fit in said groove and comprising relatively adjustable sections or members, one of which is carried by the desk-bracket, and means for expanding the tongue, substantially as specified. 11th. The combination with a desk-bracket, and a desk-top having a dovetailed groove, of an expanding dovetailed tongue adapted to fit in said groove and comprising relatively adjustable sections or members, one of which is carried by the desk-bracket, and a key for insertion between the contiguous channeled surfaces of said grooves or members, substantially as specified. 12th. The combination with a bracket, and a slat for detachment thereto, said slat having a dovetailed groove, of a dovetailed tongue on the bracket to fit in said groove, and an eccentric carried by the slat to engage said tongue and hold it seated in the groove, substantially as specified. 13th. The combination with a bracket having a dovetailed tongue, and a slat provided with a dovetailed groove to receive said tongue, of an eccentric mounted in a seat in the slat communicating with said groove and provided with a flat side and a circumferential rib, the rounded surface of the eccentric being adapted to bear against the contiguous side of the tongue to hold the latter in engagement with the groove, and the eccentric having a wrench-seat or socket, substantially as specified.

No. 51,521. Shoe. (*Chaussure.*)

Alexander M. Bollinger, Williamsport, Pennsylvania, U.S.A., 4th March, 1896; 6 years. (Filed 7th February, 1896.)

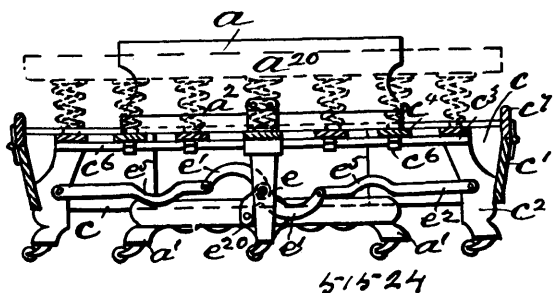
Claim.—1st. A shoe formed from a single blank or pattern of oblong shape and comprising a vamp at one end, a counter stiffener at one side, and a quarter portion at the opposite side formed with an inwardly-extending slit at its free end to admit of the upper edge of the vamp overlapping the lower edge of the front, substantially as described. 2nd. A shoe formed from a single blank or pattern of oblong shape and comprising a vamp at one end, a top or front at the opposite end, and a counter stiffener and back intermediate of the ends and at the sides of the blank, and having an approximately L-shaped space and a gusset space upon opposite sides of a line passing centrally through the back and at right angles to the length of the blank, and having a slit extending inwardly from the free end of the back to receive the rear end of the vamp adjacent to the counter stiffener, substantially as set forth for the

the combination of the landside, and a cutting flange extending from the landside, substantially as specified. 4th. In a plough, the



combination of the landside, a cutting flange extending from an l at right angles to the landside, in front of the middle thereof, the sole of the cutting flange in the same plane as the sole of the landside, substantially as specified.

No. 51,524. Couch Bed. (Canapé-lit.)



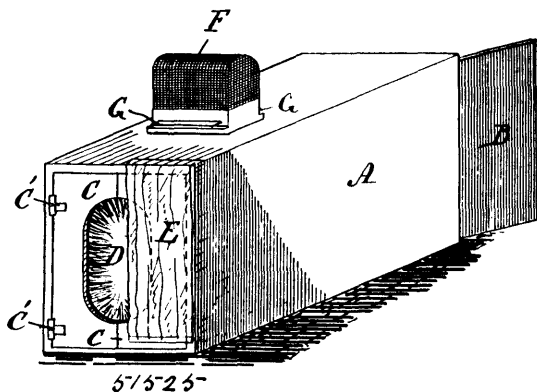
Charles Driver, Boston, Massachusetts, U.S.A., 4th March, 1896; 6 years. (Filed 10th February, 1896.)

Claim.—1st. In a couch bed, collapsible spring-supporting frame, comprising a middle section, and two side sections movable toward and from the middle section to narrow and widen the bed, combined with the central operating shaft e, having its bearings in the ends of the middle section, a pair of arms e', located at or near each end of said shaft projecting in opposite ways, and links e'', connecting the extremities of said arms with the movable side sections, substantially as described. 2nd. In a couch bed, a collapsible spring-supporting frame, comprising a middle section, and two side sections movable toward and from the middle section to narrow and widen the bed, combined with the central operating shaft e, a pair of bent arms e', located at or near each end of said shaft, projecting in opposite ways, and links e'', bent as shown connecting the extremities of said bent arms with the movable side sections, substantially as described. 3rd. In a couch bed, a collapsible spring-supporting frame, comprising a middle section, and two side sections movable with relation thereto, a mattress, and pockets extending lengthwise the side sections, which receive the sides of the mattress, combined with spring actuated strips e', forming extensions of said pockets, substantially as described. 4th. In a couch bed, a collapsible spring-supporting frame, comprising a middle section, and two side sections movable with relation thereto, and a narrow head and foot board, combined with the supplementary spring actuated strip b', pivotally connected to the top of the foot board, and curved inwardly to overlie the end of the mattress, substantially as described. 5th. In a couch bed, a collapsible spring-supporting frame, having a narrow head and foot board, combined with a head rest consisting of a quadrangular skeleton frame hinged at its rear end to the head board and provided with springs, and upholstered, said head rest when turned up serving as a support for a pillow, substantially as described. 6th. In a couch bed, a collapsible spring-supporting frame, having a narrow head and foot board, combined with a head rest consisting of a quadrangular skeleton frame comprising end pieces d', d', bottom cross slats d'', and d'', and a rear cross slat d', said head rest being upholstered and hinged at its rear end to the head board, substantially as described. 7th. In a couch bed, a collapsible spring-supporting frame, having a narrow head and foot board, combined with a head rest consisting of a quadrangular skeleton frame, hinged at its rear end to the head board and upholstered, and provided with overhanging portions, which serve as stops when the head rest is in its elevated position, substantially as described. 8th. The head rest herein described, consisting of the wedge-shaped end pieces d', d', bottom spring-supporting cross slats d'', d'', and rear cross slats d', springs supported by said cross slats d'', d'', and upholstery or covering for the frame, the cross slat d'' to which hinges are secured to the rest near the rear end and leaving overhanging portions, substantially as described. 9th. In a couch bed, the combination of a middle section comprising

head and foot board having raceways, and a middle bar rigidly connecting said head and foot boards together, side sections movable in and out with relation to said middle section and comprising side pieces c', and end piece e, e, and transverse guide bars sliding in guideways provided on the middle section, longitudinal spring-supporting slats f' resting loosely upon said guide bars, the ends thereof overlying the raceways, and being additionally supported thereby, substantially as described. 10th. In a couch bed, the combination of the head and foot boards, and middle bar connecting them together, side sections movable in and out consisting of the side pieces c', end pieces, e, e, and transverse guide bars, sliding in openings provided on the middle bar, a fixed spring-supporting slat at the outer edge of the side section, and spring-supporting slats resting loosely upon the transverse guide bars, between said fixed slats and the middle bar, and flexible connections connecting said slats with the outer fixed slats, and with the middle bar, substantially as described. 11th. In a couch bed, the side section movable in and out with relation to the main section, consisting of the side pieces c', end pieces e, e, transverse guide bars for said section, spring-supporting slats resting loosely on said guide bars and having loops m' secured to the undersides thereof, which embrace said transverse guide bars, substantially as described. 12th. In a couch bed, a bed bottom adapted to be extended and retracted, mechanism for extending and retracting it, and a locking device holding the bed bottom extended, substantially as described. 13th. In a couch bed, two side sections movable in and out, mechanism for so moving them, and a locking device for holding the sections out, substantially as described. 14th. In a couch bed, two side sections movable in and out, a central operating shaft having radially projecting arms, links connecting the extremities of said arms with said side sections, and limiting stops which limit the movement of said shaft after the connections at the extremities of the arms have crossed the line intersecting the connections at the outer end of the links, and the axis of the central operating shaft, substantially as described. 15th. In a couch bed, a middle section comprising head and foot boards and a middle bar, and two movable side sections, brackets secured to the head and foot boards, a central operating shaft having its bearings in said brackets, and intermediate mechanism connecting said shaft to said movable section, substantially as described. 16th. In a couch bed, a middle section comprising head and foot boards, and a middle bar connected therewith by means of end pieces a'', bent to present recesses between the ends of the middle bar and the head and foot boards, to receive and permit unobstructed movement of a co-operative part of the operating mechanism, substantially as described. 17th. In a couch bed, a middle section comprising head and foot boards, and a middle bar connected therewith by means of end pieces a'', bent to present recesses between the ends of the middle bar and the head and foot boards, said sections being movable in and out with relation to said middle section, a central operating shaft and arms projecting radially therefrom which work in said recesses between the ends of the middle bar and the head and foot boards, substantially as described.

No. 51,525. Device for Catching Horn Flies.

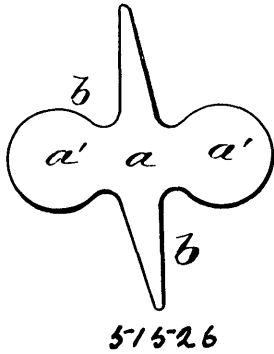
(Piège à mouches de bêtes à cornes.)



Walter Bristow, Hawkesville, Fred Everett and Howard Walker, both of Iroquois, all of Ontario, Canada, 4th March, 1896; 6 years. (Filed 7th February, 1896.)

Claim.—1st. A device for catching flies which infest domestic animals, comprising a stall or box A of sufficient size to admit one animal, having door B at the entrance and double swinging doors C at the opposite or exit end, and an opening for the admission of light in the top near the exit end, said opening covered by a wire netting F forming a fly trap of any ordinary construction, substantially as and for the purpose hereinbefore set forth. 2nd. In a device for catching flies, that infest domestic animals, narrow exit doors C hinged at the sides and having secured to their inner edges broom corn or brush extending to meet at the vertical centre, and springs or equivalent device to keep said doors closed and to allow of said doors partly opening while an animal is passing out, substantially as and for the purpose hereinbefore set forth.

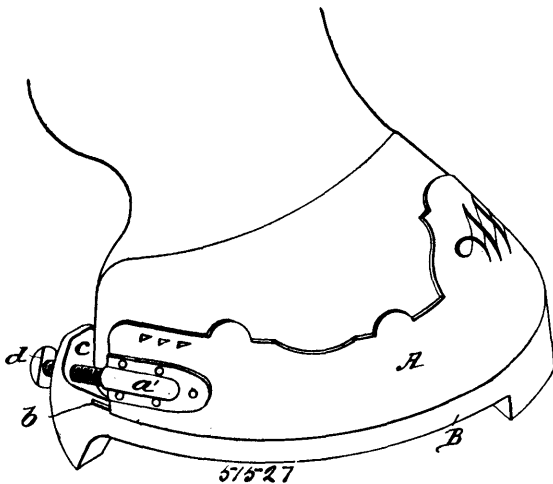
No. 51,526. Button Fastener. (Attache pour boulons)



Aron Frederick Smith, as trustee, Lynn, assignee of Eleazer Kempshall, Newton, both of Massachusetts, U.S.A., 4th March, 1896; 6 years. (Filed 10th February, 1896.)

Claim.—1st. A button fastener composed of a head formed to bear on the underside of the button-piece, two prongs projecting from opposite sides of the head and provided with oppositely inclined edges or faces 2, 2 relatively arranged to co-operate so that each prong will guide the other during the operation of bending. 2nd. A button fastener composed of a sheet metal head formed to bear on the under side of the button-piece, two tapering sheet-metal prongs projecting from opposite edges of the head, the width of each being in excess of its thickness, whereby the prong is guided in a predetermined direction while being bent, the said prongs being arranged to form two loops located side by side. 3rd. A button fastener composed of a sheet-metal head formed to bear on the under side of the button-piece and provided with extensions *a'*, *a'*, two tapering sheet-metal prongs projecting from opposite edges of the head, the width of each being in excess of its thickness, whereby the prong is guided in a predetermined direction while being bent, the said prongs being arranged to form two loops located side by side. 4th. The combination of a button having a central orifice, a cross-bar extending across the same, a fastening device having a head formed to bear on the under side of the article to which the button is attached, and two prongs formed to penetrate the said article and enter the orifice of the button at opposite sides of the cross-bar, the said prongs being bent over in opposite directions to form loops or eyes located side by side upon said cross-bar.

No. 51,527. Horseshoe. (Fer à cheval.)

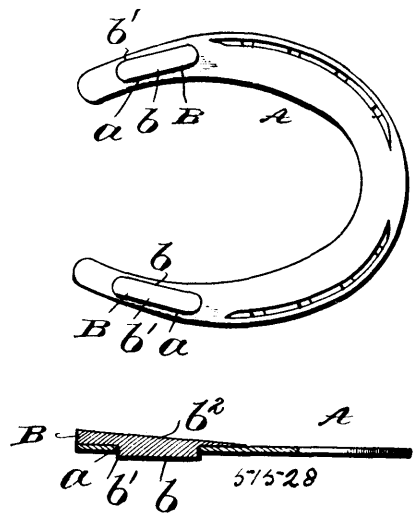


George Lafayette Reynolds, Auburn, New York, U.S.A., 4th March, 1896; 6 years. (Filed 10th February, 1896.)

Claim.—1st. A nailless horseshoe in which is combined a band *A*, partly embracing the horse's hoof, a shoe having a groove in the outer edge thereof and upward projections at its extremities, a flange formed at the lower edge of said band and engaging with and working in said groove, sockets at both ends of said band *A*, screws passing through the projections upon the extremities of the shoe and engaging with said sockets upon the band, all substantially as and for the purposes set forth. 2nd. A nailless horseshoe of the character described, comprising therein a band with a returned edge, grips attached to the shoe inside of said band and near both extremities thereof, nuts or sockets at the ends of said band, a shoe with a groove in the outer edge thereof to receive the returned edge of said

band, projections on both ends of the shoe, screws passing through said projections and engaging with the sockets in said band whereby, in turning in said screws both said band and shoe are tightened, thus firmly securing them to the horse's hoof, substantially as and for the purpose set forth. 3rd. In a nailless horseshoe, a band of any appropriate material, and either plain or ornamental, teeth *f* punched out in said band and engaging the horse's hoof, a shoe engaging with the lower edge of said band and screws passing loosely through the ends of said shoe and engaging with threaded sockets in said band to tighten said band and the shoe at the same time, substantially as set forth. 4th. A nailless horseshoe as before described with a band *u*, of any appropriate material extending over the front of the hoof and near the top, said band being in two parts and fastened by means of a screw *k* in the middle, having the extreme ends attached to the grips *E*, or to the shoe near the extremities thereof, nuts or sockets with screws to securely fasten the band *A*, a shoe with a groove in the outer edge to receive the returned edge of said band, projections on both ends of the shoe, with screws passing through them and engaging with said band whereby the band and shoe are firmly secured to the horse's hoof, substantially as set forth.

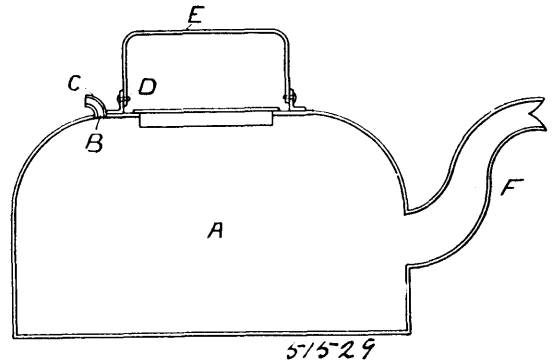
No. 51,528. Horseshoe. (Fer à cheval.)



John Peter Buengers, Racine, Wisconsin, U.S.A., 4th March, 1896; 6 years. (Filed 10th February, 1896.)

Claim.—A horseshoe having metallic ground and hoof contact surface throughout the greater part of its extent, and provided with pads of yielding material interposed between the heel of the shoe and the foot, said pads having projections extending through the shoe and beyond the lower surface of the shoe, substantially as described.

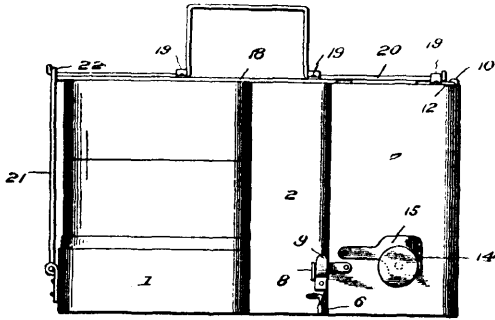
No. 51,529. Kettle. (Bouilloire.)



Eugene Danforth, Montreal, Quebec, Canada, 4th March, 1896; 6 years. (Filed 10th February, 1896.)

Claim.—1st. In a kettle, an outlet for steam, as and for the purposes described. 2nd. In a kettle, an outlet having a cover or hood to direct the steam escaping thereby, from the handle. 3rd. The combination of a kettle and aperture and a hood or cover, for the purposes described.

No. 51,530. Lunch Box. (Boîte à lunch.)

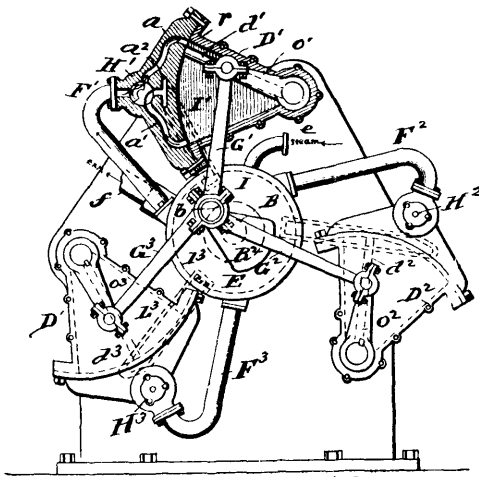


51530

Jacob Victor, Winona, Minnesota, U.S.A., 4th March, 1896; 6 years. (Filed 10th February, 1896.)

Claim.—1st. In a dinner pail or lunch box, the combination with the frame, the superimposed food trays, the coffee receptacle having an extension at its upper end and the lugs secured to said receptacle, of the lamp casing, having hooks engaging with said lugs, and so located as to form a space between its upper end and said extension, the bail secured to said casing, the lamp seated in said bail, the opening in the side of said casing and the pivoted plate, substantially as described. 2nd. In a dinner pail or lunch box, the combination with the frame, the superimposed food trays, the liquid receptacle, the removable lamp casing and the lamp, of the tray cover the bail or yoke pivotally connected therewith and the catch pivoted to said frame, with which one end of said bail or yoke engages, substantially as described.

No. 51,531. Steam Engine. (Machine à vapeur.)



51531

John Virtue Rice, jr., Edgewater Park, New Jersey, U.S.A., 4th March, 1896; 6 years. (Filed 11th February, 1896.)

Claim.—1st. The herein described multiple sector cylinder engine, consisting in the combination with the central main crank shaft of the engine, of three or more double acting oscillating pistons for applying power to said shaft, arranged around the latter substantially equidistant from each other and from the shaft and located in substantially the same vertical plane, each of said pistons having its rock shaft provided with a crank arm, and three or more separate and independent sector-shaped steam cylinders containing said pistons, and connecting rods which connect the main engine shaft with the crank arms of each piston, together with a suitable cut-off mechanism, substantially as described. 2nd. The herein described multiple sector cylinder engine, consisting in the combination with the main engine shaft, of three or more double acting oscillating pistons arranged around the latter for applying power thereto, suitable connecting rods between said pistons and the shaft, a live steam receptacle surrounding and adjacent to the engine shaft and receiving its steam from the steam supply and delivering it through passages to each cylinder, and an exhaust receptacle likewise surrounding and adjacent to the engine shaft and receiving the exhaust from all the cylinders, substantially as described.

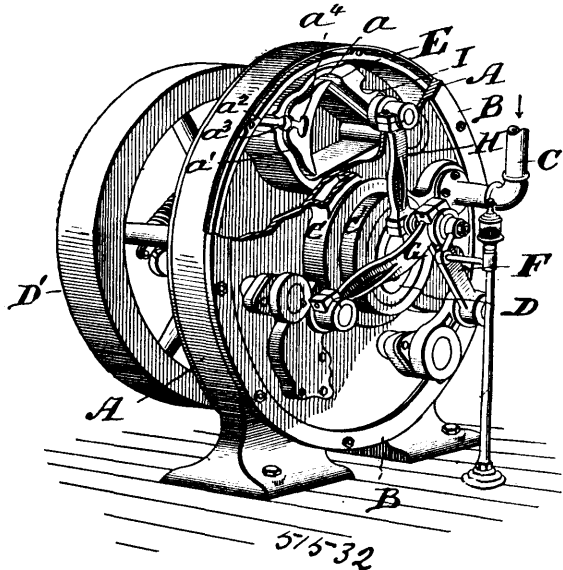
3rd. The herein described multiple sector cylinder steam engine, consisting in the combination with the central drive shaft of the engine, of three or more double acting oscillating pistons for applying power to said shaft, arranged around the latter substantially equidistant from each other and from the shaft and located in substantially the same vertical plane, each of said pistons having its rock shaft provided with a crank arm, connecting rods which connect the main shaft with the crank arms of each piston, a steam receptacle surrounding and adjacent to the engine shaft which receives its steam from the steam supply, conduits or pipes leading from this receptacle to each of the cylinders, an exhaust receptacle surrounding and adjacent to the engine shaft that receives the exhaust steam from the cylinders, valves in each cylinder that control the steam supply as well as the exhaust, and automatically operating cut-off mechanism between these valves and the main shaft, substantially as described. 4th. In an engine, the combination of frame A, cylinders D¹, D², D³, pistons d¹, d², d³, therein, shaft B, having crank B¹, connecting rods G¹, G², G³, steam chamber E, and exhaust chamber F, pipes F¹, F², F³, leading from chamber E, to the cylinders and exhaust passages I¹, I², I³, leading from the cylinders to the exhaust chamber F, substantially as described. 5th. In an engine, the combination of cylinders D¹, D², D³, pistons d¹, d², d³, therein having rock shafts provided with arms o¹, o², o³, shaft B, and the connecting rods between its crank and said arms, chambers E, and F, pipes F¹, F², F³, leading from chamber E, to the cylinders, passages I¹, I², I³, leading from cylinders to chamber F, plug valves H¹, H², H³, having arms I¹, I², I³, eccentric K, having strap k, and rods L¹, L², L³, and a governor, all arranged to operate substantially as described. 6th. In a steam engine, the combination of a series of oscillating pistons and their sector-shaped cylinders, all arranged so as to be double acting and each piston having its rock shaft provided with a crank arm, the driving shaft of the engine, the connecting rods between the piston arms and the driving shaft, an annular steam receptacle surrounding and adjacent to the shaft, pipes or conduits leading from said receptacle to each cylinder, an annular exhaust receptacle likewise surrounding and adjacent to the main shaft, passages leading from the cylinders to said receptacle, valves in each cylinder, controlling the supply and exhaust, eccentric links connected thereto, the eccentric and a governor, substantially as described. 7th. The herein described sector cylinder engine, consisting in the combination with a central shaft, of three or more double-acting oscillating pistons for applying power to said shaft, arranged around the latter, substantially equidistant from each other and from the shaft and located in substantially the same vertical plane, each of said pistons having its rock shaft provided with a crank arm, three or more sector-shaped steam cylinders containing said pistons, connecting rods which connect the main shaft with the crank arm of each piston, plug valves located in each cylinder and having arms, rods attached to these arms and operated by the main shaft for the purpose of providing an automatic cut-off, an annular steam receptacle surrounding and adjacent to the main driving shaft, an annular exhaust receptacle likewise surrounding and adjacent to the main shaft, and passages leading from the steam and exhaust receptacles to the several cylinders, substantially as described. 8th. The herein described multiple sector cylinder engine consisting in the combination with the main central engine shaft, of three or more double acting, oscillating pistons for applying power to said shaft, arranged around the latter substantially equidistant from each other and from the shaft, three or more separate and independent sector-shaped steam cylinders containing said pistons, suitable connecting rods which connect the main shaft with the crank arms of each piston, valves arranged in the several cylinders for controlling the supply and exhaust of the steam for each side of the piston, rods connected to said valves and operated automatically by the main shaft so that the cut off may be automatic, a steam receptacle surrounding and adjacent to the main shaft, pipes running from said receptacle to the several cylinders, an exhaust receptacle likewise surrounding and adjacent to the main shaft, pipes leading from said exhaust receptacle to the several cylinders, substantially as described. 9th. In an engine, the combination with the main engine shaft, of a series of three or more sector-shaped cylinders arranged around the shaft, said cylinders being separate and independent from each other and each having its own inclosing casing or wall, provided with ports, passages and a valve, a series of double-acting oscillating pistons located in said cylinders so as to receive steam alternately on their opposite sides, connecting rods between said pistons and the shaft for applying power to the latter, a live steam receptacle adjacent to the shaft and receiving its steam from the steam supply, steam pipes leading from said receptacle to the several cylinders, an exhaust receptacle likewise adjacent to the engine shaft, and exhaust pipes leading from the several cylinders to the said receptacle, substantially as described.

No. 51,532. Steam Engine. (Machine à vapeur.)

John Virtue Rice, jr., Edgewater Park, New Jersey, U.S.A., 4th March, 1896; 6 years. (Filed 11th February, 1896.)

Claim.—1st. In a steam engine, the combination of a central main crank-shaft, three or more double acting oscillating pistons for applying power to said shaft arranged around the latter, substantially equidistant from each other and from the shaft and located in substantially the same vertical plane, suitable connecting rods between said pistons and the shaft, three or more separate and in-

dependent sector-shaped steam cylinders containing said pistons and a steam-containing chamber within which the several sector-



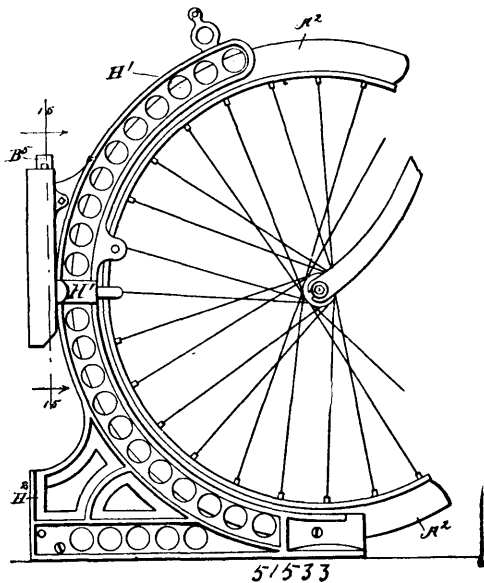
shaped steam cylinders are located in such manner that they are constantly surrounded by steam, substantially as described. 2nd. In a steam engine, the combination of the central main crank shaft of the engine, three or more double acting oscillating pistons for applying power to said shaft, arranged around the latter substantially equidistant from each other and from the shaft and located in substantially the same vertical plane, suitable connecting rods between said pistons and the shaft, three or more separate and independent sector-shaped steam cylinders containing said pistons, an inclosing steam containing chamber within which the several sector-shaped steam cylinders are located in such a manner that they are constantly surrounded by steam which exhausts thereinto from the several cylinders, and a steam supply chest on the face of the inclosing casing from which steam is delivered to the several cylinders, substantially as described. 3rd. In a steam engine, the combination of the main crank shaft of the engine, three or more double acting oscillating pistons for applying power to said shaft, arranged around the latter substantially equidistant from each other and from the shaft and located substantially the same vertical plane, each of said pistons having its rock shaft provided with a crank arm, three or more separate and independent sector-shaped steam cylinders containing said pistons, connecting rods which connect the main engine shaft with the crank arm of each piston, an inclosing steam-containing chamber within which the several sector-shaped steam chests are located in such a manner that they are constantly surrounded by steam which exhausts thereinto from the several cylinders, a live steam chest on the face of the said casing from which steam is delivered to the several cylinders and a suitable cut-off mechanism, all arranged and combined substantially as described.

No. 50,533. Bicycle Rack. (Râtelier pour bicycles.)

Henry Westphal, Chicago, Illinois, U.S.A., 4th March, 1896; 6 years. (Filed 10th February, 1896.)

Claim.—1st. The combination with a rack or stand, of a pair of latches pivotally secured therein and adapted to engage the wheel of a bicycle, a locking mechanism located in the rack, a sliding bar having at its upper portion means to engage the lock, and inwardly inclined slots in its lower part for the latches, and a lever fulcrumed to the rack and adapted to engage the sliding bar and raise the same by the pressure of the wheel, substantially as described. 2nd. The combination with a rack or stand, of a pair of latches pivotally secured therein and adapted to engage the wheel of a bicycle, a locking mechanism located in the rack, a sliding bar having at its upper portion means to engage the lock and provided in its lower part with inwardly and downwardly inclined slots for the latches, said slots terminating in vertical openings, and a lever fulcrumed to the rack and adapted to engage the sliding bar and raise the same by the pressure of the wheel, substantially as described. 3rd. The combination with a rack or stand, of a pair of latches pivotally secured thereon and adapted to engage the wheel of a bicycle, a locking mechanism located in the rack, a sliding bar connecting the lock and latches, means for raising said bar and placing the latches in engagement with the wheel by the pressure thereof, retaining devices secured to a support, a casing having openings in its rear part for the reception of the retaining devices, and a dog or detent pivotally secured in the casing and adapted to engage one of the retaining devices to prevent the removal of the rack, substantially as described. 4th. The combination with a rack or stand, of a pair of latches pivotally secured therein, a sliding bar connecting the rack and latches,

means for raising said bar and placing the latches in engagement with the wheel by the pressure thereof, retaining devices secured to



a support, the casing having enlarged and elongated openings in its rear part for the reception of the retaining devices, a dog or detent pivotally secured in the casing, and adapted to engage one of the retaining devices to prevent the removal of the rack, and means for disengaging the dog or detent from said retaining device, substantially as described. 5th. The combination with a rack or stand, of a pair of latches pivotally secured therein, a locking mechanism located in the rack, a sliding bar having at its upper portion means to engage the lock, and provided in its lower part with inwardly and downwardly inclined slots for the latches, means for raising said bar and placing the free ends of the latches towards each other, retaining devices secured to a support, a casing having openings in its rear part for the reception of the retaining devices, a dog or detent pivotally secured on the casing and adapted to engage one of the retaining devices to prevent the removal of the casing, and means for disengaging the dog or detent from said retaining devices, substantially as described. 6th. The combination with one or more retaining devices secured to a support, of a piece provided with openings for the insertion of said retaining devices, a dog or detent pivoted to said piece and adapted to engage one of the retaining devices, substantially as described. 7th. The combination of the adjustable retaining devices B¹ and B², each being provided with a head, with a plate or its equivalent having elongated and enlarged openings for the reception of the retaining devices, and a dog or detent pivoted to said plate and adapted to engage the catch or retaining device B², substantially as described. 8th. The combination of the adjustable retaining devices B¹ and B², secured to a support, each being provided with a head, with a casing having openings for the reception of said retaining devices, a dog or detent pivotally secured in the casing and adapted to engage the catch or retaining device B², and means for disengaging the dog from said catch, substantially as described. 9th. The combination with a rack or stand, of a pair of latches pivotally secured therein, a locking mechanism located in the rack, a sliding bar having at its upper part means to engage the lock, an opening d¹⁰, and means at its lower part to engage the latches, means for raising the bar, retaining devices secured to a support, a dog having an arm g⁶, and pivoted to the casing, and adapted to engage one of the retaining devices, a casing having openings in its rear for the reception of the retaining devices, and an opening c¹⁰, in its face for the insertion of a pin or the like to pass through the opening d¹⁰, in the bar and to contact with the arm g⁶, of the dog, substantially as described. 10th. The herein described dog or detent consisting of the upright portion G, having a ledge or projection g³, the transverse part g, provided with the arms g¹, the transverse part g, provided with the arms g¹, and projection g⁶, substantially as described. 11th. The combination of the casing, with the cover B², having the arm b⁵, projecting into the casing, the dog b⁶, pivoted to the casing and adapted to engage said arm, the sliding bar D, and a mechanism to raise the same and to cause it to lift the dog, substantially as described.

No. 51,534. Head for Cultivators.

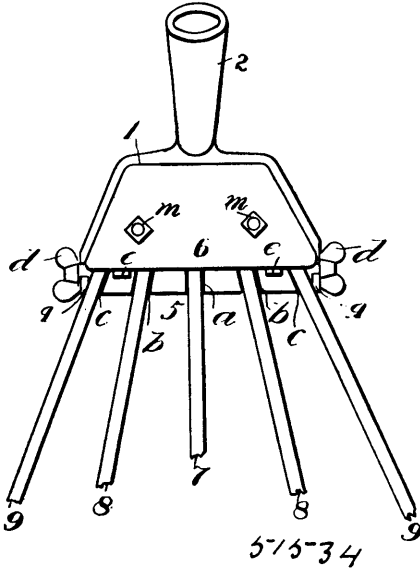
(Tête ajustable pour cultivateurs.)

Joseph N. Clouse, St. Louis, Missouri, U.S.A., 4th March, 1896; 6 years. (Filed 11th February, 1896.)

Claim.—1st. In an adjustable head for cultivators, the body plate with its handle-socket, series of pivot holes and hangers, in combi-

nation with an adjusting roller, provided with bearings and a series of straight and spiral right and left grooves, substantially as des-

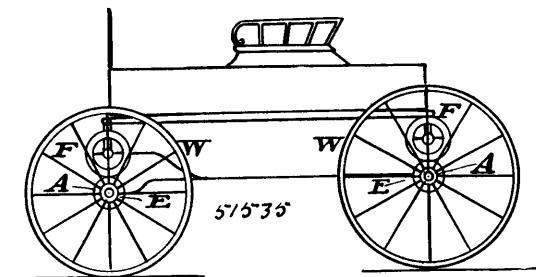
combination with a tire sheath having along each edge thereof a circumferential wire consisting of more than one convolution the



cribed. 2nd. In an adjustable head for cultivators, the body plate with its handle-socket, hangers and series of pivot holes, in combination with the heads of the tines provided with pivot pins, substantially as described. 3rd. In an adjustable head for cultivators, the combination of a series of tines secured by pivots and bolts between a binding plate and a body plate provided with a handle-socket, and hangers, to which is pivoted and adjustment roller provided with a series of grooves, substantially as specified. 4th. In an adjustable head for cultivators, the combination of the body plate with its socket, series of pivot holes, hangers, adjustment roller, with its series of grooves, the series of tines with their heads and pivot pins secured by means of a binding plate, and bolts, all substantially as set forth.

No. 51,535. Running Gear for Vehicles.

(Train de voitures.)



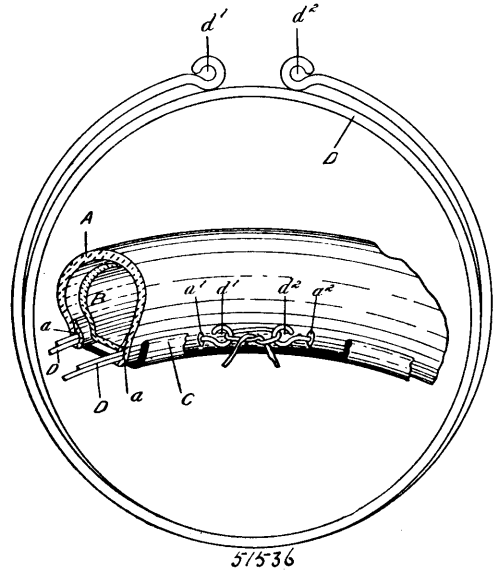
Odele Wilson, St. Louis, Missouri, U.S.A., 4th March, 1896; 6 years. (Filed 11th February, 1896.)

Claim.—The combination with the wheels WN and axles AA of wheeled vehicles, of the super axles BB, supporting the body of the vehicle and mounted on the front and rear springs CC, the pneumatic or cushion wheels EE, mounted on the ends of the super axles BB and hubs of the wheels WW, substantially as described and for the purpose set forth.

No. 51,536. Wheel Tire. (Bandage de roue.)

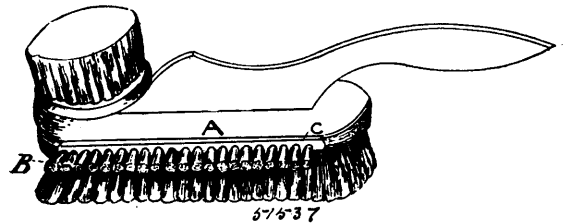
The Goid Bicycle Company, Brantford, assignee of Robert Scott Anderson, Toronto, both in Ontario, Canada, 4th March, 1896; 6 years. (Filed 23rd January, 1896.)

Claim.—1st. A wheel tire secured upon the wheel rim by means of circumferential wires, each consisting of more than one convolution, the ends of each of said wires being outside of the tire and drawn towards each other and secured together outside of the tire substantially as and for the purpose set forth. 2nd. A pneumatic tire secured upon the wheel rim by means of circumferential wires, each consisting of more than one convolution, secured in the edges of the tire sheath, the ends of each of said wires being outside of the tire sheath and drawn towards each other and secured together outside of the tire sheath thus binding the tire to the rim substantially as described. 3rd. In a pneumatic tire, an inner inflatable tube in



ends of which wires protrude from the tire sheath and are tied together by means of a suitable cord or string outside of the tire sheath, thus binding the tire to the rim substantially as described.

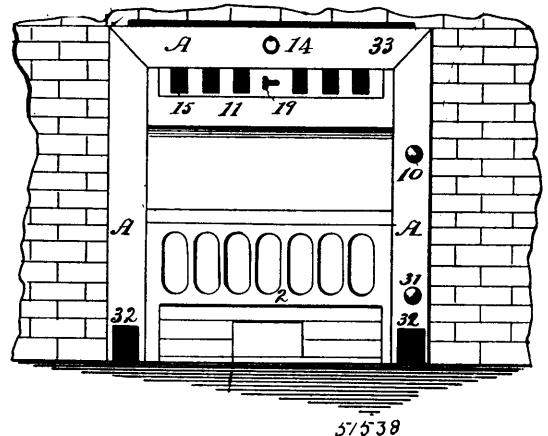
No. 51,537. Shoe Brush. (Brosse à chaussure.)



Francis Burdett, Hamilton, Ontario, Canada, 4th March, 1896; 6 years. (Filed 7th January, 1896.)

Claim.—The side brush B, on the strip C, on the body A of the brush, as herein set forth.

No. 51,538. Grate. (Grille.)

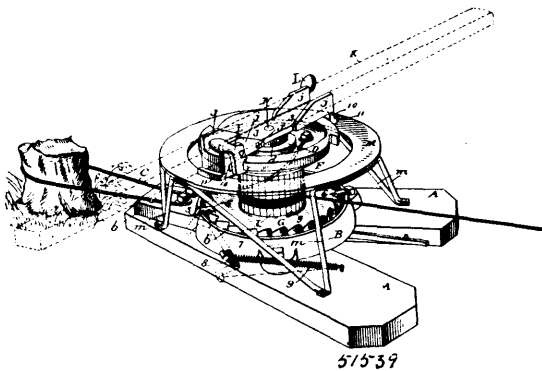


Henry Orein Hayes, Elmira, New York, U.S.A., 4th March, 1896; 6 years. (Filed 10th February, 1896.)

Claim.—1st. In a grate, the body having its back inclined forward and provided with a direct and a reverse draft openings, and suitable dampers for the two openings combined with the downwardly inclined reverse draft extension upon the back of the body, substantially as shown. 2nd. In a grate, the forwardly inclined body pro-

vided with an opening for the direct draft, and a higher opening for the reverse draft, and suitable dampers for said openings, combined with the reverse draft extension and a damper for the lower end of the extension, substantially as described. 3rd. In a grate, the forwardly inclined body, provided with an opening for the direct draft, a separate opening for the reverse draft, and suitable valves for the said openings combined with the reverse draft extension and a damper that is adapted to close either the lower end of the extension or direct draft opening, substantially as set forth. 4th. In a grate, the forwardly inclined body provided with an opening for the direct draft, an opening for the reverse draft, and a suitable damper for the direct draft, combined with the reverse draft extension, having an opening through its top, a valve that is adapted to close both the opening through the top of the extension and the reverse draft opening and a mechanism for operating the damper, substantially as specified. 5th. In a grate, the forwardly inclined body provided with a direct draft opening and a reverse draft opening, combined with the reverse draft extension, having an opening through its top, a valve that is adapted to close either this opening through the top of the extension or the reverse draft opening through the front, a damper for closing the lower end of the draft extension or the direct draft opening, and a mechanism for operating the two drafts simultaneously, substantially as shown.

No. 51,539. Stump Extractor. (Arrache-souche.)



Charles N. Blood, Anamosa, Iowa, U.S.A., 4th March, 1896; 6 years (Filed 3rd February, 1896.)

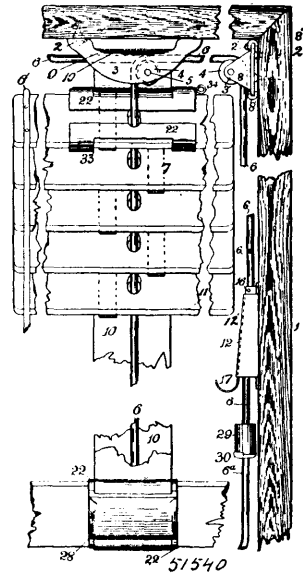
Claim.—1st. A drum or windlass, comprising a metallic middle portion and heads, and a sheathing for the said middle portion secured between the heads and composed of a series or wooden slats, or equivalent elastic material, substantially as described. 2nd. A drum or windlass comprising heads heald at a fixed relative distance apart, and having annular seats in their opposing faces, there being an opening leading through a head from the seat therein, and a series of slats or strips inserted through the said opening and having their ends fitted and held in the said annular seats, substantially as described. 3rd. A cast metal drum having seats in the opposing sides of the heads contiguous to the middle portion, one of the heads having an opening extending there through from the seat, and a sheathing formed by a series of slats or strips which are inserted through the said opening and have their ends fitted in the said seats, said seats touching at their edges and backed and sustained by the middle portion of the drum, substantially as described. 4th. The combination with the drum vertically disposed, and a horizontal circular track arranged in a plane below the flanged edge of the top head, of a sweep seat having its ends constructed to travel upon the said horizontal circular track, and a sweep fitted to the sweep seat, substantially as described. 5th. The combination with the vertically disposed drum having its top head flanged and provided with notches in the edge of the flange, and a circular track, of a sweep seat having its end portions embracing the edge portions of the said notched flange and having its ends provided with shoes to travel upon the said track, a pawl carried by the said sweep seat to engage with the notched flange, and a sweep removably attached to the said sweep seat, substantially as described. 6th. In combination, a vertically disposed drum having a notched flange at its upper end, a horizontal circular track arranged below the notched flange, a sweep seat having its end portions embracing the notched flange and provided with shoes to travel upon the track, a pawl carried by the sweep seat to engage with the notched flange, a sweep attached to the sweep seat, and a vertically movable king bolt to secure the seat in place, the parts being combined so that the sweep seat can be placed in position by a sidewise movement, substantially as described.

No. 51,540. Venetian Blind. (Persienne.)

Leonard Gunn, 4 Southampton Row, London, W.C., England, 4th March, 1896; 6 years. (Filed 13th January, 1896.)

Claim.—1st. The combination in or with a venetian blind of the supporting brackets screwed or similarly fastened to the window head, the rounded surface thereon for supporting the tapes and the guide roller for the blind cords. 2nd. The combination in or with a venetian blind of the combined supporting brackets and cord guide

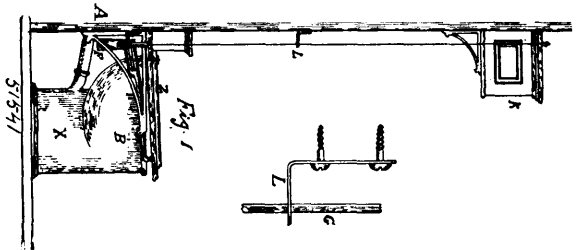
fitted into and secured to shoe permanently secured to the window head, the rounded surface on said bracket, and the screw pins for



supporting the same. 3rd. For the purpose of supporting and operating venetian blinds, the combination of the bracket 3, mounted in the shoe, and secured thereto by screws, pins or the like. 4th. For the purpose of raising, lowering and fastening the cords operating venetian blinds, the combination and use of the shoe 12, secured to the window frame and having tapering sides and top flanged over as at 14, the rubber liner 15, the combination of the gripping device with the cords operating therewith, the hinged joint 21 and the rubber roller for gripping the cords in the way and manner described. 5th. For the purpose of coupling together the cords operating venetian blinds, the combination of the device shown in Figs. 8 and 9. 6th. In apparatus for coupling together the cords operating venetian blinds, the combination of the inner tube 30, split as at 31, having holes 32, 32¹, therein for the cords 6, 6^a, with the outer case 29. 7th. The combination in or with a venetian blind of the device shown in or with a venetian of the device shown in Figs. 10 and 11, the bent ends 22, embracing laths 7, the L, shaped piece 24, pivoted in extensions 23, and having a notch 24¹, for gripping and readily releasing the operating cord, the seats 26, for formed as described, fitted with a cover 28, and the tubular pieces 27, mounted therein and secured by stitching to the tapes 10. 8th. The combination in or with a venetian blind of the supporting clip formed with the eyes 33, from one piece of metal, the tubular pieces 27, for connecting the tapes 10, and the split pins 34, for holding said pieces in position by means for the eyes 33. 9th. The combination in or with a venetian blind of the cord guiding bracket 3¹, secured as shown to the shoe 8¹, screwed to window frame.

No. 51,541. Self-Acting Water Closet Attachment.

(Mécanisme d'irrigation automatique pour cabinet d'aisance.)



John Francis Goodwin and George Elliott Morrison, both of Sarnia, Ontario, Canada, 4th March, 1896; 6 years. (Filed 28th January, 1896.)

Claim.—1st. The combination of the seat Z, with the set screw and bar or lever B, in a water closet attachments, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the bar or lever B, with the bracket A, in water closet attachments, substantially as and for the purpose hereinbefore set forth. 3rd. The combination of the bar or lever B, with the bar or arm C, in water closet attachments, substantially as and for the purpose hereinbefore set forth. 4th. The combination of the weight F, with the bar or lever B, and the bar or arm C, in water closet attachment

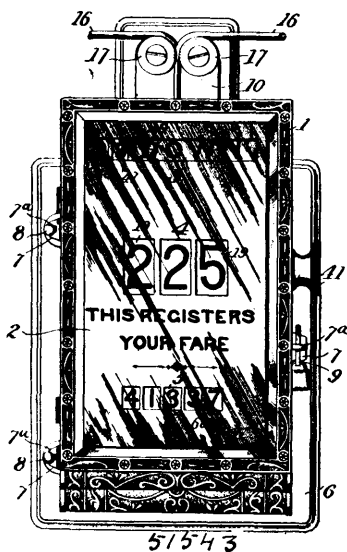
substantially as and for the purpose hereinbefore set forth. 5th. The combination of the bar or arm C, with the lock E, in water closet attachment, substantially as and for the purpose hereinbefore set forth. 6th. The combination of the bar or arm C, with the guide D, in water closet attachments, substantially as and for the purpose hereinbefore set forth. 7th. The lock E, and the guide D, in water closet attachment, substantially as and for the purpose hereinbefore set forth. 8th. The combination of the lock E, with the guide D, in water closet attachments substantially as and for the purposes hereinbefore set forth. 9th. The combination of the rod G, with the bar or lever I, and weight H, in water closet attachments, substantially as and for the purpose hereinbefore set forth.

No. 51,542. Medicinal Compound. (Composé médicinale.)

Marie Caroline Pentasta Sébastien, Huron de la Jeune Lorette, Québec, Canada, 4 mars, 1896; 6 ans. (Filé le 30 août, 1895.)

Résumé.—Une composition de matières formée de feuilles poilues, de gingembre sauvage, de racine d'anis sauvage, de racine de couglous, de racine d'herbe à dinde, de feuilles de grande mauve, de canphire et d'ammoniaque dans les proportions et pour les fins indiquées.)

No. 51,543. Fare Register. (Registre de billet.)



Frederick C. Boyd and Charles E. Gierding, both of New Haven, Connecticut, U.S.A., 5th March, 1896; 6 years. (Filed 19th January, 1895.)

Claim.—1st. In a fare register, the ratchet-wheels secured to the side of the trip register discs, each provided on one of its sides with pins, means for turning the said wheels and discs, the dogs 34 for engaging the pins on the disc, the rock-shaft by which the dogs are carried, the depending arm 35, and a reciprocating device for engaging said arm, substantially as described. 2nd. In a fare register, the combination of the rock-shaft 33, its dogs 35, the trip register discs and means for operating the same, the ratchet-wheels provided with projections or pins, and means for lowering and raising the arm 35, to throw said dogs into and out of engagement with said pins, substantially as described. 3rd. In a fare register, the combination of the shafts 28 and 33, the discs 19 and their attached wheels, the pawls, the pawls engaging said wheels, the dogs engaging pins or teeth, the depending arm 35 engaging the shaft 28, and the spring for rocking the shaft 33, substantially as described. 4th. The combination of the discs 47 and 48, a drum attached to and moving with the former, the shaft supporting said disc having upon one of its ends a ten-toothed ratchet-wheel, the arm 53 journaled on said shaft and carrying a spring-pressed pawl, the pendent arm 55, and its spring, the cam 43 acting upon said pendent arm, and means for turning said cam, substantially as described. 5th. The combination, with the trip register and zero register discs, of a cam 43 means for moving said cam together with the trip discs to carry the latter to zero, an arm arranged to be operated by said cam and connected to move the zero register discs step by step, substantially as described. 6th. The combination of a bell hammer inclined on its inner edge and having the shoulder 81, the click pivoted to the slide, and the arm for restoring the click on the return movement of the slide, substantially as described. 7th. In a fare register, the combination of the shaft 18, the cam 43 secured on said shaft and provided with a hole, a sliding knob carrying a pin adapted to the hole in the cam, a zero register and devices for actuating the zero register adapted to be acted upon by the cam,

substantially as described. 8th. In a fare register, the combination of the frame, the trip register discs and their shaft, a cam secured on said shaft having a hole therein and aligning with a similar hole in the frame, a sliding knob carrying a pin adapted to the holes in the cam and frame, a zero register and devices for actuating the zero register, adapted to be acted upon by the cam, substantially as described. 9th. In a fare register of the character described, the combination of the supporting board provided with the studs 8, and the casing having lugs projecting therefrom and provided with slots for engaging said studs, substantially as described. 10th. In a fare register, the combination of the supporting board provided with the studs 8, the casing having lugs projecting therefrom and provided with slots for engaging said studs, and a locking device for said casing, substantially as shown and set forth. 11th. In a fare register, the combination of the supporting board provided with the headed studs 8, and the stud 8^a having therein an opening, the casing having lugs for engaging said studs, a pin passing through the latter stud, and a lock for securing the same, substantially as shown and set forth. 12th. In a fare register, the combination of the supporting board provided with the studs, and the casing having lugs for engaging said studs, substantially as described. 13th. In a fare register, the combination of the supporting board provided with the studs for attachment of the casing, the casing having lugs for engaging the studs, and a locking device for said casing, substantially as described. 14th. In a fare register, the combination of the trip register discs, the ratchet wheels attached to the sides thereof a pivoted yoke, the movable slide connected with the yoke, the separate pawls for said ratchet wheels disposed to engage the same from beneath, the shaft 28 carried by the yoke and supporting pawls, and the spring for maintaining the pawls in their normal position, substantially as set forth. 15th. The combination of the discs 19, shoulders 39, corresponding in number to said discs, the ratchet wheels secured to the sides of the discs and provided with spring-pressed pawls engaging such shoulders, substantially as described. 16th. The combination of the shaft 18, the discs 19 revolving independent of said shaft, and shoulders on said shaft and pawls carried by said discs and engaging said shoulders, substantially as and for the purpose described. 17th. The combination of the shaft 18 and sliding knob provided with a pin adapted to a recess in the frame, substantially as described. 18th. The combination of the shaft 18, cam 43 and sliding knob carrying a pin adapted to recesses in the cam and in the supporting frame, substantially as described. 19th. The combination of the zero register wheels and a disc containing the words up and down alternately arranged opposite the numbers on the wheels, substantially as described. 20th. The combination of the bell-striking arm, having a shoulder 81, reciprocating pawl arranged to engage the edge of said arm, a lug and a spring for holding the pawl against the lug, substantially as described. 21st. The combination of the totalizing wheels 60 loose on the shaft 61, the ratchet wheels carried by one of said wheels, the lever 63 having its outer end supported upon said shaft, the pawl engaging the ratchet wheel, the arm 65, the yoke 26 to which said arm is connected, and the shaft 18 and movable slide, substantially as described. 22nd. In a fare register, the combination of the units wheel of the totalizing train, the pin 66 projecting from one of said wheels, the loosely mounted star wheel 67 engaged by said pin and the gear 69 and 70, substantially as shown and for the purpose described. 23rd. The combination with the bell, and the slide having the notches 77, of the bell hammer having the shoulder and formed with the inclined inner edges, the click pivoted to said slide, and means for restoring the click on the return of the slide, substantially as described. 24th. The combination of the slide having the notches, and provided with a pivoted click, the tail of which engages such notches, the stop for the click, the bell hammer or striking lever inclined on its inner edge and provided with the shoulder, and the bell or gong, substantially as described. 25th. In a fare register, the general indicator discs, each having a plain surface on one side, and provided on the opposite side with an annular projecting rim on the face of which the indicating numerals are placed, substantially as described.

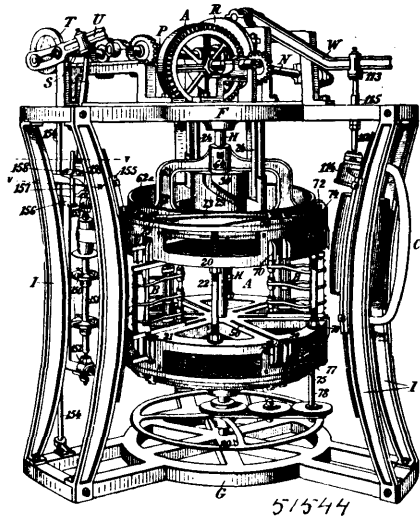
No. 51,544. Machine for Making Staves.

(Machine à douelles.)

John Olsen Storvik, Christiansund, Norway, 5th March, 1896; 6 years. (Filed 15th February, 1895.)

Claim.—1st. In a machine for making staves for casks, barrels and the like, the combination with means for holding the wood blocks out of which the staves are cut, and a rotatable support or carrier for a number of such holders, of tools arranged around the said rotatable carrier and consisting of a hollow saw, a shaft carrying tools for crozing and cutting and bevelling off the ends of the staves, and a jointing device, said three sets of tools acting simultaneously upon three different wood blocks, and said carrier making one-third of a revolution for each working period of said tools. 2nd. In a machine for making staves, the combination with a rotatable carrier for the wood blocks of a barrel-formed saw for cutting staves out of the blocks, said barrel-formed saw being keyed to a shaft that has it bearings on a carriage which works up and down on curved guides, so that the cutting section of the saw during the movement of the carriage describes an arch which is a continuation of the curve representing the longitudinal shape of the saw. 3rd. In a machine for making staves as secondly claimed, the modification consisting

in making the saw cylindrical, and the guides for its carriage straight, so that the staves cut will be straight-lined instead of



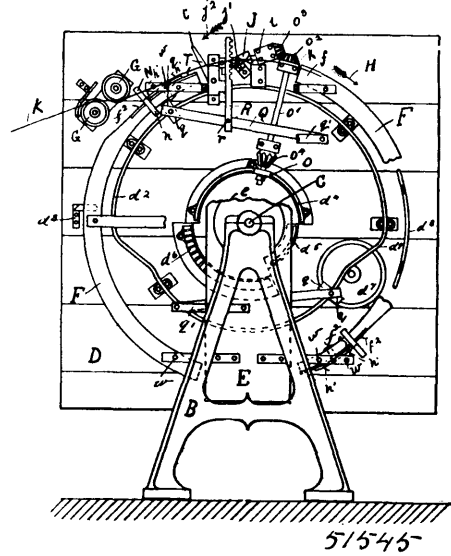
bulged. 4th. In a machine for making staves, the combination with a rotatable carrier for the wood blocks, and a hollow saw and its carriage of a jointing device consisting in two circular saws, the shafts of which are mounted on a carriage, having guides that conform with the shape of the hollow saw, said carriage and the carriage for the hollow saw being hung on each end of a lever having a rocking movement so that one carriage moves upward when the other moves downward. 5th. In a machine for making staves, a jointing device from cutting the sides of the staves before the stave is severed from the woodblock, consisting in two circular saws, each of which is keyed to a separate horizontal axle, said axle being placed under an angle with each other on two brackets, which are pivotally mounted on a vertical shaft bolted to a carriage, that works up and down on curved or rectilinear guides, said brackets having forked arms that embrace curved guide-rods, so that the brackets are slightly turned upon their pivot during the up and down movement of the carriage. 6th. In a machine for making staves, the combination with tools for successively operating upon one and the same woodblock, of holders for the woodblocks and a rotatable carrier for the holders, said carrier consisting of two discs firmly and adjustably connected with each other and rotatably mounted on a central fixed shaft, one of the said disc being provided with means by which the carrier may be imparted a periodical rotation in one and the same direction, and also with means for periodically holding the carrier steady at rest. 7th. In a machine for making staves, the combination with a rotatable carrier for the woodblocks, substantially as specified in the preceding claim, of holders for the woodblocks, said holders being mounted in radial slots in the plane discs constituting the carrier and being provided with tooth-racks projecting through the said slots on the other side of the disc and in engagement with circular ribs mounted on rings fixed to the central standard of the machine, said circular rib being provided with an adjustable offset piece serving to feed the holders forward once for each revolution of the carrier. 8th. In a machine for making staves, the combination with a rotatable carrier for the woodblocks, of holders for the woodblocks said holders being provided with a set of catch-arms or spring-arms serving to hold the blocks loosely to the holders. 9th. In a machine for making staves, the combination with a rotatable carrier and holders for the woodblocks mounted thereon of spring-arms bolted to the carrier and having toothed ends serving to hold the woodblocks securely while they are acted upon by the tools. 10th. In a machine for making staves, the combination with a rotatable carrier and holders for the woodblocks mounted in radial slots in said carrier and means for feeding the holders outward in the said slots of spring-arms for holding the woodblocks steady during the working period of the tools and means for lifting the said spring-arms out of contact with the woodblocks during the forwards feeding of the holders.

No. 51,545. Machine for Making Loops on Binding Wires. (*Appareil à faire les ganses sur le fil de fer à lier.*)

Edward Lemyer dit Gaucher, Maskinong, Quebec, Canada, 5th March, 1896; 6 years. (Filed 3th September, 1895.)

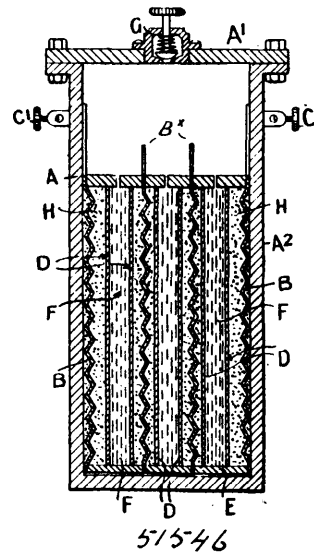
Claim.—1st. In a machine for making loops on binding wires, a panel D, cam rail d^3 , forked lever L, cutter M, deflecting wheel d^7 ,

piece E, and shaft C, substantially as described and for the purposes set forth. 2nd. In a machine for making loops on binding wires, a



panel D, cam rail d^3 , lever N, and points n^1 and f^2 , circular guides F, and shaft C, substantially as described and for the purposes set forth. 3rd. In a machine for making loops on binding wires, a panel D, cam rail d^2 , lever Q, with trundles rolls q , piece E, rack R, gear j^1 , hooks J and I, piece j^3 , and shaft C, substantially as described and for the purposes set forth. 4th. In a machine for making loops on binding wires, a panel D, circular rails d^4 and d^5 , circular rack d^6 , perpendicular shoes O, gears O^1 , O^2 and O^3 , shaft O^1 , and twisting head i , hooks I and J, piece j^3 , and shaft C, substantially as described and for the purposes set forth. 5th. In a machine for making loops on binding wires, a panel D, deflecting piece d^8 , lever T, and shaft C, substantially as described and for the purposes set forth. 6th. In a machine for making loops on binding wires, the combination of frames A, a fixed panel having a cam rail to secure the wires and a deflecting wheel to operate a cutter, a cam rail to form the loop by means of a lever, operating a rack intermeshing with a geared hook to hold the free end of the wire while the hook is being twisted and circular rails and a circular rack operating a twister head by means of gears and shafting, a deflecting piece operating a lever to throw off the wire loop from the twister hook, with a piece E, shaft C, and driving pulley C^1 , substantially as described and for the purposes set forth.

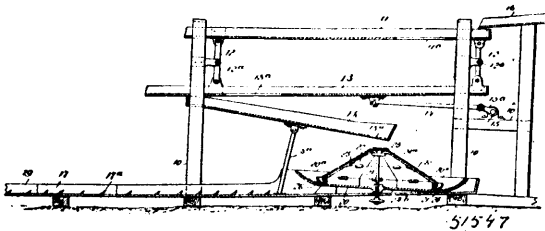
No. 51,546. Storage Battery. (*Pile secondaire.*)



Alexander Schansehieff, Upper Norwood, Surrey, England, 5th March, 1896; 6 years. (Filed 30th September, 1895.)

Claim.—1st. In a secondary battery the combination of a box with gastight cover, means for escape of the hydrogen evolved, a plate next to one inner side of the box said plate carrying positive active material and connected to the positive terminal, another plate next to the opposite inner side of the box said plate carrying negative active material and connected to the negative terminal, an intermediate plate not connected up carrying negative active material on one side and positive active material on the other side, means for keeping the plates apart, the exciting liquid, in the lower part of the box and means for keeping the cells liquid tight said cells being constituted by the space between each two plates, substantially as set forth. 2nd. In a secondary battery a plate consisting of a conductor with lead or silver surface carrying active material consisting of sugar carbonised by a sulphuric acid solution, and mixed with the active material, minium or litharge respectively and with dilute sulphuric acid substantially as set forth. 3rd. In a secondary battery a plate consisting of sheet iron coated with suitable acid resisting metal and carrying the active material, substantially as set forth. 4th. A secondary battery consisting of a gastight cover fitted with a safety valve for escape of the hydrogen gas evolved, a plate next to one inner removable side of the box, said plate carrying positive active material and connected to the positive terminal, another plate next to the opposite inner side of the box said plate carrying negative active material and connected to the negative terminal, an intermediate plate not connected up carrying negative active material on one side and positive active material on the other side, perforated sheets for keeping the active material in place while admitting the liquid thereto, distance pieces for keeping the plates apart the exciting liquid in the lower part of the box and frames of insulating material for keeping the cells liquid tight, said cells being constituted by the space between each two plates, substantially as set forth.

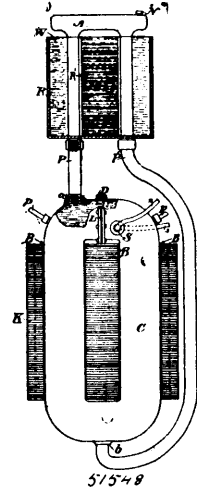
No. 51,547. Gold separating Apparatus.
(Appareil pour séparer l'or.)



James F. Gwin, Moscow, Idaho, U.S.A., 5th March, 1896; 6 years. (Filed 27th May, 1895.)

Claim.—1st. A gold separator device, comprising a feeding sluiceway for water and gold mixed with refuse matter, two chutes supported in the same vertical plane, a screen in each chute near opposite ends, means for communicating longitudinal jolting movement to the chutes, and a gold arresting device below said chutes, substantially as described. 2nd. A gold separator device, comprising a feeding sluiceway for water and gold mixed with refuse matter, two chutes supported in a frame one above the other, and adapted to receive opposite rocking and jolting movement, the chutes having a separator screen located near opposite ends, a gold arrester device below the chutes and having a fibrous cover, an amalgamator device and means for transferring water, gold and refuse matter from the lower chute to the gold arrester, substantially as described. 3rd. In a gold separator, the combination with a supported sluice trough for feeding water, gold and refuse matter, of an upright frame, two chutes on said frame, one above the other, means for agitating the chutes longitudinally and oppositely, a screen in each chute located near opposite ends thereof, and a gold arrester device comprising a frame covered with woollen fabric, a box wherein said arrester device is located, and a series of mercury-charged troughs around the arrester device and adapted to receive washings therefrom, substantially as described. 4th. In a gold separator, the combination, with a supported sluiceway, an upright frame, two chutes each having a screen in its bottom wall and adapted for longitudinal movement in opposite directions, the said chutes being located in the same vertical plane, the lower chute receiving water, gold and refuse matter from the upper chute, a woollen covered arrester device below the chutes, a trough leading from the lower chute to the gold arrester device, an elongated box containing the arrester device, and mercury-charged rifles transversely disposed on the bottom of said box, substantially as described. 5th. In a gold separator, substantially as described, the gold arrester device, comprising a receiver, a polygonal frame in said receiver, vertically adjustable cover pieces on said frame, a woollen fabric covering for said cover pieces, and removable troughs at the side of the frame below the lower edge of the woollen fabric, as specified. 6th. In a gold separator, substantially as described, the gold arrester device, comprising a longitudinally inclined box, transverse rifles in said box charged with mercury, a dish receiver in the box, a polygonal frame in said receiver, vertically adjustable cover pieces on the frame, an adjusting screw therefor, a fibrous woollen cover for the upper portion of the polygonal frame, and a series of mercury holding troughs in the receiver and under the lower edge of the woollen cover of the polygonal frame, as specified.

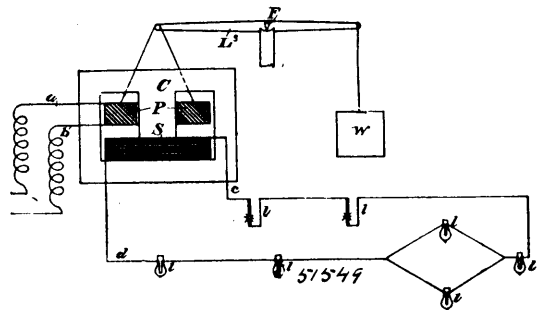
No. 51,548. Transformer. (Transformeur.)



The Canadian General Electric Company, Toronto, Ontario, Canada, assignee of Elihu Thomson, Swampscott, Massachusetts, U.S.A., 5th March, 1896; 6 years. (Filed 20th March, 1895.)

Claim.—1st. A transformer comprising primary and secondary coils, a common iron core therefor and a casing containing the coils, and located between the coils and the core. 2nd. In a transformer having a closed magnetic circuit of laminated or divided iron, a casing surrounding both primary and secondary coils located between the coils and the core, and suitably insulated, as described, so as not to formed a closed circuit parallel to the winding of either the primary or secondary coil. 3rd. In a transformer, primary and secondary coils inclosed within a casing surrounding said coils but not inclosing the iron core, and containing an insulating fluid, in combination with means for cooling such insulating fluid. 4th. In a transformer, a casing, as C, interposed between the core and the coils and filled with insulating fluid, such casing being provided with an insulated joint, as shown, and openings for the leading-in wires. 5th. In a transformer, a casing, as C, interposed between the core and the coils, suitably insulated therefrom, and filled with insulating fluid, such casing being provided with an insulating joint and openings for the leading-in wires, in combination with means, consisting of circulating pipes and an inclosing vessel adapted to convey away the heat from the insulating fluid in the casing. 6th. The combination in a transformer, of primary and secondary coils surrounding the same magnetic core, a casing inclosing said coils only and having an insulating space between it and the iron core, and an insulating and cooling fluid contained within said casing. 7th. In a transformer, primary and secondary coils divided into sections, in combination with a sealed casing of metal interposed between such coils and the core of the transformer, but insulated from the latter, such casing being provided with openings for the leading-in wires. 8th. In a transformer, primary and secondary coils divided into sections and a closed casing of metal interposed between such coils and the core of the transformer, such casing being provided with openings for the leading-in wires adapted to be packed after their insertion, in combination with means, consisting of suitable circulating pipes and a cooling vessel, adapted to convey away the heat from the insulating fluid.

No. 51,549. Regulator for Alternate Currents.
(Régulateur pour courant alternatif.)

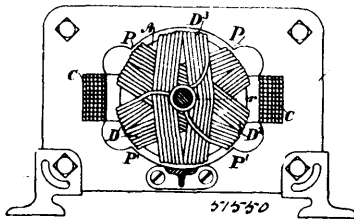


The Canadian General Electric Company, Toronto, Ontario, Canada, assignee of Elihu Thomson, Swampscott, Massachusetts, U.S.A., 5th March, 1896; 6 years. (Filed 20th March, 1895.)

Claim.—1st. An alternate current regulator comprising primary and secondary inductions coils, relatively movable with respect to each other by the repulsive action of the induced and inducing currents, into positions of greater or less inductive action, the said secondary coil being in circuit with the translating devices. 2nd. An alternate current transformer and regulator, comprising a primary coil in the main circuit, a secondary coil in circuit with translating devices, said coils being movable with respect to each other under the action of the repulsion of the inducing and induced currents, and means tending to move the coils in opposition to the action of the current. 3rd. An alternate current transformer and regulator comprising primary and secondary coils relatively movable into position of greater or less inductive action, and tending to assume the position of greater inductive effect, but free to be removed by the repulsive action of the currents into positions of less inductive action, the said secondary coil being in circuit with translating devices. 4th. The combination of a primary coil connected to the main circuit, a secondary coil connected to translating devices, the said coils being so mounted that they may assume various relative positions to vary their inductive relations, and are free to change their relative positions under the action of the induced and inducing currents, in the coils themselves and independent means tending to oppose such change of position under the action of said currents. 5th. The combination of the primary and secondary coils respectively in the main and work circuits, and relatively movable to and from one another under the action of the current in the coils alone and of suitable opposing means, to vary their inductive relation. 6th. The combination of the primary and secondary coils respectively in the main and work circuits, one of said coils being fixed and the other coil being movable with regard thereto under the action of the current therein to vary their inductive relation, and means for opposing such motion of the coil under the action of the current. 7th. The combination in a regulating transformer of the fixed coil, the partly counterbalanced movable coil, and one of said coils being in the main and the other in the work circuit. 8th. In a regulating transformer, the combination of a fixed coil, a coil movable under the action of the current to the position of minimum induction and provided with flexible circuit connections, translating devices connected thereto by such connections, and means tending to move said coil to the position of maximum induction. 9th. The combination in a regulating transformer of the primary and secondary coil wound on an iron core forming a closed magnetic circuit but movable relatively toward and away from each other, to vary the leakage and the inductive effects as described, the said coils being respectively included in the main and the work circuits. 10th. The combination in a regulating transformer of the primary and secondary coils wound on an iron core forming a closed magnetic circuit, but movable relatively to each other under the action of the current to vary the leakage and the inductive effects as described, the said coils being respectively included in the main and the work circuits. 11th. The method of producing and regulating an alternating current which consists in producing the same by induction from an alternating current, causing such inducing and induced currents to react on one another and utilizing such reactive energy to effect a change in the inductive relation of the currents.

No. 51,550. Electric Motor.

(*Moteur électrique.*)



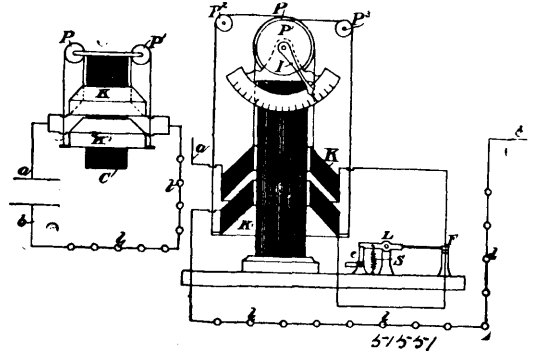
The Canadian General Electric Company, Toronto, Ontario, Canada, assignee of Elihu Thomson, Swampscott, Massachusetts, U.S.A., 5th March, 1896; 6 years. (Filed 20th March, 1895.)

Claim.—1st. The method of operating an induction motor for alternating currents, which consists in partly closing the armature coils as local circuits at starting and subsequently wholly short circuiting said armature coils. 2nd. The method of operating an induction motor for alternating currents, which consists in partly short circuiting the armature coils at starting and gradually increasing the short circuiting as the motor takes speed. 3rd. The method of operating an alternating current induction motor which consists in closing a portion only of the armature conductors at starting, and in subsequently completely closing and maintaining closed the armature windings or circuits. 4th. The method of operating an induction motor for alternating currents, which consists in short circuiting the armature coils for given periods during revolution at starting and gradually increasing the period of short circuiting until the coils are wholly short circuited. 5th. An induction motor in which the number of armature coils is prime to the number of inducing poles, the said coils being continuously short-

circuited under load and at speed, substantially as herein described. 6th. In an induction motor comprising inducing field magnet coils and an armature carrying induced coils, a commutator connected to such coils and brushes bearing upon such commutator adapted to short-circuit, the armature conductors during part of a revolution when starting and to maintain the short circuit during the entire revolution when running at normal speed. 7th. An induction motor comprising inducing field magnet coils and an armature carrying induced conductors the number of which is prime to that of the field-magnet poles, a commutator connected to such induced coils and brushes bearing upon such commutator adapted to short-circuit, the armature conductors during part of a revolution when starting and to maintain the short-circuit during the entire revolution when running at normal speed.

No. 51,551. Electric Regulator.

(*Régulateur de électrique.*)



The Canadian General Electric Company, Toronto, Ontario, Canada, assignee of Elihu Thomson, Swampscott, Massachusetts, U.S.A., 5th March, 1896; 6 years. (Filed 20th March, 1895.)

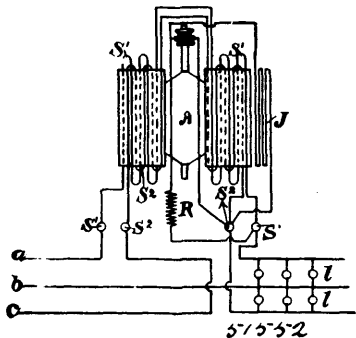
Claim.—1st. A regulator for alternating currents comprising a core, coils thereon relatively movable under the influence of alternating currents flowing in them, such coils having a range of motion wherein the mutual repulsion is substantially constant for a constant current, and a constant approximating means opposing the repulsion of the coils. 2nd. A regulator for alternating currents comprising a core, coils relatively movable thereon under the influence of alternating currents flowing in them, such coils restricted to a range of motion wherein the mutual repulsion is substantially constant for a constant current, one of said coils having a contracted portion within the other coil, and constant approximating means opposing the repulsion of the coils. 3rd. A regulator for alternating currents comprising a core, coils upon such core relatively movable under the influence of alternating currents flowing therein, such coils restricted to a range of motion wherein the mutual repulsion is substantially constant for a constant current, and one of them entering partly within but engaging with the other coil when they are brought together, and constant approximating means opposing the repelling influence of the current in the coils. 4th. A regulator for alternating currents comprising coils relatively movable under the influence of alternating currents flowing therein, such coils restricted to a range of motion wherein the mutual repulsion is substantially constant for a constant current, an open circuit iron core surrounded by said coils, and constant approximating means opposing the mutual repulsion of the coils. 5th. In an alternate current regulator, the combination of mutually inductive coils, one or both being vertically movable and suspended so as to be partly counterbalanced, and subject to a constant gravitating force. 6th. In an alternate current regulator, the combination of the mutually inductive coils, mutually repulsive by the action of the currents traversing them, and connected together so as to partly counterbalance one another. 7th. In an alternate current regulator, the combination of the mutually inductive coils, mutually repulsive by the action of the currents traversing them, and cords and pulleys connecting said coils together.

No. 51,552. Electric Meter. (*Electromètre.*)

The Canadian General Electric Company, Toronto, Ontario, Canada, assignee of Elihu Thomson, Swampscott, Massachusetts, U.S.A., 5th March, 1896; 6 years. (Filed 20th March, 1895.)

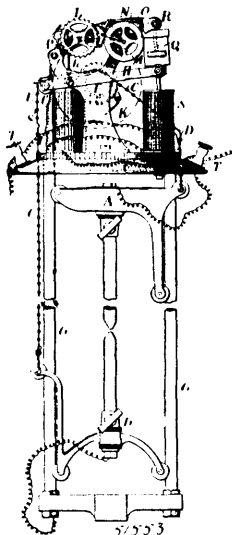
Claim.—1st. A recording watt-meter for the three-wire or series-multiple system, comprising an armature in shunt between the mains of such system and two sets of series coils furnishing the field, the sets symmetrically disposed so that some of the coils of each set are upon each side of the armature, thus furnishing a composite field of substantially equal intensity in all its parts. 2nd. A recording watt-meter for use upon the three-wire or series multiple system comprising a series of field-magnet coils arranged in sets, part of each set upon each side of the armature, an armature, a resistance

and a starting coil, the armature and starting coil being in multiple with each other and in series with the resistance, and all three being



in shunt to the mains of the system. 3rd. A recording watt-meter for the three-wire or series-multiple system, comprising field magnet coils connected across the outer mains of such system and disposed in sets, some of the coils of each set being upon opposite sides of the armature, an armature in shunt to the mains and a resistance in series with such armature. 4th. A recording watt-meter for the three-wire or series-multiple systems, comprising field-magnet coils connected across the outer mains of such system and disposed in sets, parts of each set being upon opposite sides of the armature, an armature, a starting coil and a resistance, the armature and starting coil being in multiple with each other and in series to the resistances and all three being in shunt to the mains.

No. 51,553. Electric Lamp. (Lampe électrique à arc.)

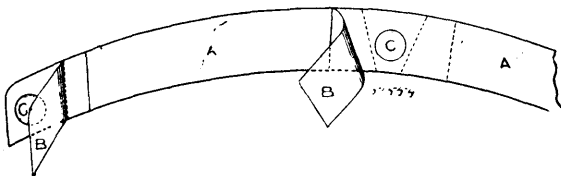


Samuel Sealey Allin, 25 Garlick Hill, Cannon Street, London, England, 5th March, 1896; 6 years. (Filed 14th May, 1895.)

Claim.—1st. In an electric arc lamp, the combination of a lower carbon holder and a heavier upper holder connected by a chain passing over guide pulleys and a sprocket wheel, the pulley from which the chain is led to the lower holder being mounted on a rocking lever connected to the cores of solenoids having their coil in the lamp circuit, and the sprocket wheel being geared to an escapement on the balance wheel of which bears a brake lever connected to the core of a solenoid having its coil in a shunt to the lamp circuit, arranged and operating substantially as described. 2nd. In an electric arc lamp such as is above referred to, a connection from the rocking lever to the brake lever whereby the escapement is released from the brake when the lamp is not in circuit, substantially as described.

No. 51,554. Shirt Collar Band.

(Bande de col de chemise.)

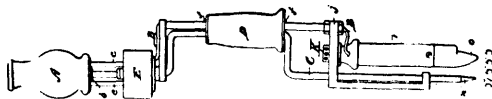


Morison Kyle, Rat Portage, Ontario, Canada, 5th March, 1896; 6 years. (Filed 10th September, 1895.)

Claim.—The novel and peculiar construction of collar band by the combination of the piece of suitable material marked B, and the shirt collar band marked A, substantially as and for the purpose hereinbefore set forth.

No. 51,555. Electric Soldering Iron.

(Fer électrique à souder.)



Frederick H. Date, John Heffron, John Scudder and Benjamin H. Scranton, all of Detroit, Michigan, U.S.A., 5th March, 1896; 6 years. (Filed 2nd July, 1895.)

Claim.—1st. The herein described electric soldering capping iron, having an electrically heated soldering head arranged upon a crank-shaft and adjusted to revolve around the retaining point as described and specified. 2nd. In an electric soldering iron of the class described, an electrically heated soldering head, mounted on a crank-shaft an adjustable sustaining brace to hold said soldering head, and arranged to be raised and lowered upon the crank-shaft, substantially as described and specified. 3rd. An electric soldering iron, mounted on a crank-shaft and arranged for a rotary motion, as described and specified. 4th. An electric soldering iron of the class described, mounted on a crank shaft, in combination with a track plate connected to the conducting wire on which wheels connected with the conducting wire are arranged to travel, substantially as described. 5th. An electric soldering iron of the class described, having an adjustable sustaining points, substantially as specified and described. 6th. An electric soldering iron of the class described having a detachable tip with a stem arranged to enter the spool wound with a coil of resistance wire, substantially as specified and described. 7th. In an electric soldering iron, the combination of a handle electric connecting and conducting devices, with a heating head formed with coils of resistance wire wound around a hollow spool into which a stem of the detachable tip enters, substantially as specified and described. 8th. An electric soldering iron having a detachable tip arranged to receive the stem whereon is wound a coil of resistance wire, substantially as shown and described.

No. 51,556. Process of Manufacturing Saccharine.

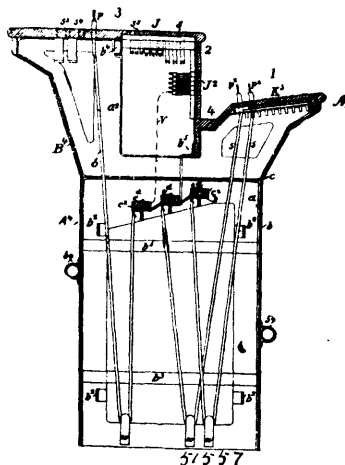
(Procédé de fabrication de saccharine.)

Conslantin Fahlberg, Salbke Westerhusen, Prussia, Germany, 5th March, 1896; 6 years. (Filed 3rd August, 1895.)

Claim.—1st. The process herein described for manufacturing anhydro-ortho-sulfaminebenzoic acid or benzoic-sulfonide or saccharine with employment of one or all reactions, set forth in this specification. 2nd. The formation of toluene from toluene-sulfonates of magnesium or other salts of toluene-sulfonic acids with the aid of sulfuric acid and superheated steam in the manner described. 3rd. The formation of benzoic acid or benzaldehyde from sulfaminebenzoic-ester, parabenzosulfonidic acid and parasulfaminebenzoic acid with the aid of sulfuric acid and superheated steam, in the manner described.

No. 51,557. Telephone Switchboard.

(Appareil d'échange de téléphone.)



The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Hammond Vinton Hayes and Theodore Spencer both of Cambridge, Massachusetts, U.S.A., 5th March, 1896; 6 years. (Filed 20th May, 1895.)

Claim.—1st. A telephone switchboard having two horizontal or approximately horizontal operating surfaces or key boards one on each side, at one of which are located connecting cords, and at the other terminal plugs of office trunk lines, and a vertical surface supporting plug socket terminals for the trunk lines, arranged between said horizontal surfaces and associated with one of them, whereby calls may be answered and connections initiated at one side of the switchboard by inserting the plugs of the connecting cord into the sockets of the calling substation and one of the trunk lines, the said connections being completed at the other side of the switchboard by inserting the plug of said trunk line into the plug socket of the called substation, substantially as described. 2nd. A telephone switchboard of the table type, having a rear horizontal operating face or keyboard on which are mounted the substation called annunciators and spring jacks, office trunk plug terminals, call sending keys, trunk signals and the clearing out signals for called lines, a front horizontal or sloping operating face or keyboard supporting the plug terminals of paired connection cords, telephone connecting keys, and the clearing out signals for calling lines, and a vertical operating face in which are supported the plug socket terminals of the said office trunks, substantially as specified herein. 3rd. In a telephone switchboard, a vertical operating face containing plug sockets constituting the initial terminals of a series of office trunk lines each extending from some one operator's position at the rear of the switch board to all operator's positions at the front of said switchboard, an operating face or keyboard, on an approximately horizontal plane extending forward from the lower edge of said vertical face, and means associated therewith for answering calls, and for uniting calling lines with the spring jacks of said office trunks, and a second table or keyboard on a higher horizontal level extending rearwardly from the upper edge of said vertical face, and means associated therewith for uniting the remaining ends of said office trunks to the lines wanted, and for sending out-going call signals to the latter, substantially as described. 4th. The combination in a telephone central office system in a sectional switchboard having answering operator's positions on one side, and connection completing operators positions on the other side, of a group of subscribers' lines terminating at each section, each line having a connection device and call indicating device at its own section only, office trunk lines each extending from some one completing operators' positions, to all of the answering operator's position, and provided at both termini thereof with connection devices, flexible conductors at both answering and completing operator's positions for uniting the two ends of said trunk respectively, to a calling and a called subscriber's line, a clearing out signal at the answering operator's position responsive to the replacement of the telephone of the calling substation, and two independent signals at the completing operator's position, one responsive to the replacement of the telephone of the called substation serving as a clearing out signal, and the other responsive to connections and disconnections of the office trunk at the position of the answering operator, and serving as a trunk connection signal, substantially as described and for the purpose specified. 5th. In a telephone central office system, the combination in a sectional switchboard having answering operators' positions on one side, and connection completing operators' positions on the other side, of a group of substation lines converging to the several sections, each line having a call indicating device, and a spring jack at its own section only, the latter being accessible to both answering and completing operators at such section, office trunk lines extending between a plug and cord terminal at some one completing operator's position, and spring jack terminals at all of the answering operators' positions, connecting cords and plugs at the answering operators' positions for uniting the said jacks of the said substation lines with said trunk jacks, an instruction circuit extending from each completing operators' telephones to the positions of all of the answering operators, and keys or buttons adapted to connect the telephones of said answering operators in the said instruction circuits, substantially as described. 6th. The combination substantially as hereinbefore described of a series of substation telephone circuits, a central station switchboard with which the said circuits are connected, having connection initiating and connection completing operators' positions, connecting cord conductors placed in pairs, at the said initiating positions respectively, and both members of each pair being provided with terminal plugs, a series of office trunk lines each extending from a plug terminal at some one of the completing operators' positions, to spring jacks or sockets at the several initiating operators' positions, induction coils interposed in the said connection cords and trunk lines to sever conductive continuity but maintain inductive continuity between the terminals thereof, signal indicating devices included in circuit with the windings of said induction coils electrical generators placed respectively in both windings of the connection cord induction coil, and in one of the windings of the trunk induction coil, whereby when any two subscribers' lines are united into a through telephone circuit, by the said connecting cords and trunk lines, a series of conductively independent circuits each including a current generator are likewise formed from the same conductors. 7th. The combination in a central office system of two substation telephone circuits united by means of an office trunk line, and a connecting cord conductor, the said trunk having a terminal plug at a connection completing operators' position to engage with the socket of the called circuit, and a plug socket at its other end, and

the said conducting cord having a plug at both ends, one placed in the plug socket of the calling subscriber, and the other in the said trunk plug sockets two induction coils, one interposed in the said trunk line circuit, and the other interposed in the said connection cord circuit, so that the two ends of each are severed conductively, but united inductively, a battery or like generator included in both windings of the cord conductor coil, and in that winding only of the trunk line coil which is nearest the called substation circuit, and three automatic signal indicators two of which are placed at the connection completing operators' position but in circuit with the two windings respectively of the trunk induction coil, and the third placed at the answering operators' position in circuit with the calling subscribers' line, all substantially as and for the purpose specified. 8th. A speaking telephone circuit extending between two terminal stations through an intermediate station, and divided by interposed induction coils into a series of independent conductively continuous sections, each containing a circuit controller, a signal current generator controlled thereby, and an automatic signal indicating device responsive thereto, substantially as described. 9th. A compound telephone circuit formed of two substation circuits united at a central station by a temporary connecting link conductor, and containing telephones for through communication at the said two substations, and two interposed induction coils at the central station, combined with three superimposed signalling circuits formed of the same conductors by the interposition of said induction coils, and each including a circuit controller, a battery, and a switchboard signal, two of the said signalling circuits being extended from the two substations concerned to their terminal switchboard points, and the third extending between such terminal switchboard points, substantially as described. 10th. The combination of a telephone circuit uniting two terminal stations through an intermediate station, telephone transmitters included directly in the said circuit at the said terminal stations, two induction coils at said intermediate station also included in the said circuit and dividing it into three independent conductively continuous sections, two extending between the two substations and the nearest induction coil, and one between the two induction coils, an automatic clearing out signal indicator, a circuit changer actuating the same, and a battery serving both to vitalize the telephone transmitter and operate the signal, in each of the two end signalling circuits, and a trunk signal, a plug and spring jack circuit changer, and a battery for operating the signal alone, in the central signalling circuit, substantially as specified. 11th. The combination substantially as hereinbefore described, of a series of substation circuits connecting their respective substations with different points of a central station switchboard, an office trunk line extending between the said points of said switchboard, fitted with connection devices at its ends, and adapted to be united at one end directly to one of said substation circuits, connection cords in pairs adapted to unite another of said substation circuits to the remaining end of said trunk to form a through circuit between the substations of the said lines, two induction coils interposed respectively between the two cords of each pair, two clearing out or disconnecting signal circuits formed by the said induction coils between the said substations and their switchboard terminal points, and each including at its own substation an automatic circuit changer operated by the replacement of the telephone, and at the central station an electrical generator, and a clearing out signal, and a trunk signal circuit formed by the said induction coils between the said two switchboard terminal points including a circuit changer operated by the connections and disconnections of the said connecting cord and office trunk, a current generator, and a signal indicator at the other end of said trunk responsive to the operation of said circuit changer, for the purpose of reporting such connections and disconnections. 12th. The combination in a telephone central office system with a telephone line extending from a central station to a substation, a spring jack and a call annunciator on a terminal switchboard of said line, a second spring jack therefor, on a relief switchboard a call annunciator therefor, associated with said spring jack on the said relief switchboard, an associated circuit extending between the said terminal and relief switchboards boards, a battery or other generator included in the said associated circuit and placed to the spring jack on the terminal switchboard, a circuit closer for the said associated circuit mounted in the spring jack of the said relief switchboard, and operated by the insertion of the answering plug therein, and intermediate distributing connections located between the spring jacks of the terminal and relief switchboards, substantially as and for the purposes specified.

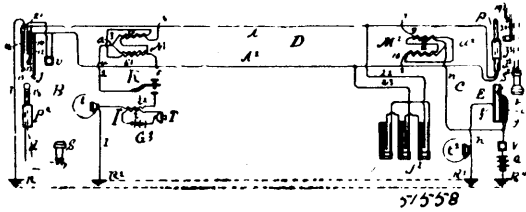
No. 51,558. Telephone and Signalling Circuit.

(Telephone et circuit de signallement.)

The Bell Telephone Company of Canada, Montreal, Quebec, Canada assignee of Frank Albert Pickernell, Newark, New Jersey, U.S.A., 5th March 1896; 6 years. (Filed 20th May, 1895.)

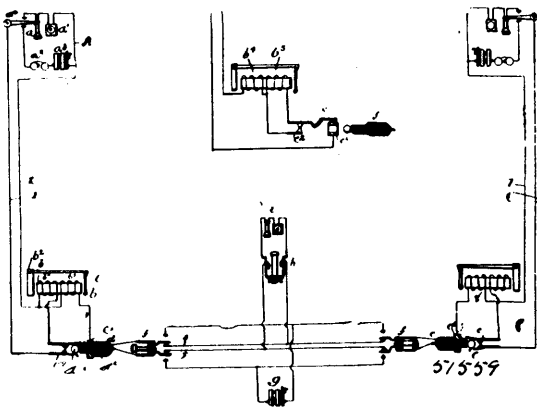
Claim.—1st. In a telephone system, the combination of a trunk line extending between two stations and having two conductors adapted to form portions of the going and return conductors of a metallic conversation circuit, means at the terminals of said trunk line for connecting the same at will with any subscribers station, an independent instruction circuit including operators telephones, and an independent signalling circuit including suitable signal-sending and receiving devices, the two conductors of the said trunk-line constituting jointly the main line or direct conductor of the said instruc-

tion and signalling circuits, substantially as described. 2nd. In a telephone system, a main telephone or conversation circuit having



two conductors, serving respectively as its direct and return conductors, combined with two obstruction coils or electromagnetic resistances connected respectively between the said direct and return conductors of the said main circuit at each of two selected stations thereof, an instruction circuit extending between the said two selected stations and composed of a direct conductor formed of the two conductors of the main circuit joined in parallel, the winding of the two obstruction coils from their two ends to their centres, and an independent return conductor uniting the central points of the said two obstruction coil windings, and including the telephones at each of the said stations, and a signalling circuit between the said stations comprising the said two main line conductors joined in parallel the obstruction coil winding at one of the said stations from its two ends to its centre, and a return conductor extending from the said centre through a signal receiving device, and an electrical generator to a connection with the two main line conductors at the other of said stations, substantially as described. 3rd. The combination of two main line conductors extending between two stations and terminating at one in a double conductor switch plug, and at the other in a switch socket or springjack, an obstruction coil at each station connected between the said two conductors, a plug seat switch at the switch plug terminal station, comprising a movable and two fixed members and operated by the removal and replacement of the plug, a conductor extending between the movable member of said switch and the central point of the obstruction coil winding at the said station, a normally discontinuous return conductor extending from the central point of the obstruction coil winding at the socket terminal station through a circuit closer, and the station telephones, to one of the fixed members of said switch, a normally continuous return conductor extending from a separable connection at the plug socket station formed in said socket and adapted to be separated by the insertion of the plug therein, to the remaining fixed member of the plug seat switch at the other station, and a signal receiving device and generator included therein at said other station, whereby the said two main line conductors may serve separately as the direct and return conductors of a double wire conversation circuit and together as the direct conductor of independent instruction and automatic signalling circuits, substantially as described.

No. 51,559. Annunciator Circuit for Telephone Switchboards. (Circuit indicateur pour appareil d'échange de téléphone.)



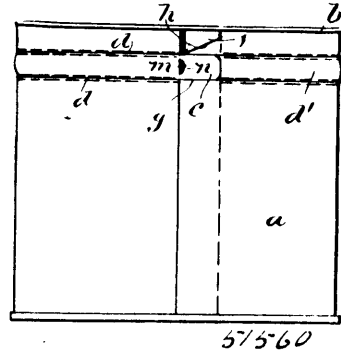
The Bell Telephone Company of Canada, Montreal, Quebec, Canada, assignee of Charles Ezra Scribner, Chicago, Illinois, U.S.A., 5th March, 1896; 6 years. (Filed 23rd August, 1895.)

Claim.—1st. The combination with a telephone line, of an electromagnet provided with two equal differentially wound helices, one of said helices being included normally in the line circuit, and mechanism operated by the act of making connection with the line at the central station for including said second helix in circuit with the line, whereby said annunciator is rendered neutral. 2nd. The combination with a telephone line, of an annunciator provided with two equal differentially wound helices connected in different parallel branches of the line circuit, a spring-jack provided with a pair of contact terminals normally in contact to include one of said helices in the line circuit, a connecting plug, and

contact terminals adapted to be actuated by the insertion of said plug in the spring-jack to include both of said helices in the line circuit, substantially as described. 3rd. The combination with two telephone line, of switches and connecting plugs therefor at the central office, individual annunciators, one for each line, each annunciator having two equal differentially wound helices, one helix of each of said annunciator being included in the line circuit, and contacts associated with the switch of one of said lines adapted when a plug is inserted in said switch to bring into the circuit the second helix of the annunciator connected with said switch, to render said annunciator neutral, while the annunciator of the other line is left in operative condition to serve as a clearing-out annunciator. 4th. The combination with two telephone lines terminating in switches at the central station, of connecting plugs adapted to be inserted into said switches to loop the lines together for conversation, an annunciator for each of said lines, each of said annunciators being provided with two equal differentially wound helices, and contacts associated with said switches and operated by the insertion of the plugs therein for including in the line circuit both helices of one of said annunciators and one helix of the other annunciator, whereby the former will be rendered neutral and the latter may serve as a clearing out annunciator, substantially as described. 5th. The combination with a telephone line, of an annunciator having equal differentially wound helices, said helices being connected with the line circuit and circuit connections and switch contacts in the spring-jack adapted to prevent the passage of current through one of said helices while the line is not in use for conversation, substantially as described.

No. 51,560. Key Opened Sheet Metal Can.

(Clé pour ouvrir les boîtes à conserves.)

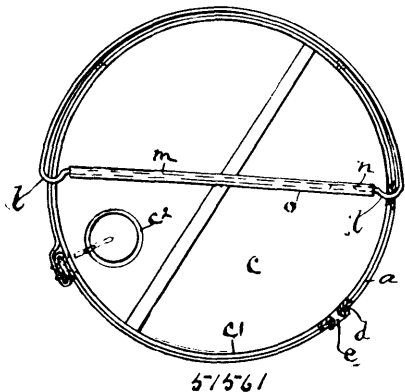


William Pratt, Montreal, Quebec, Canada, 5th March, 1896; 6 years. (Filed 11th October, 1895.)

Claim.—1st. A blank for a sheet metal can having a detachable strip demarcated by a weakening line or weakening lines, and a slit or opening through the metal transversely of said line or lines, for the purpose set forth. 2nd. A blank for a sheet metal can having a detachable strip demarcated by weakening lines, parallel with the edges of the blank forming the ends of the can, and a slit or opening between such lines, for the purpose set forth. 3rd. A blank for a sheet metal can having a detachable strip demarcated by a weakening line or weakening lines and a slit or opening through the metal transversely of said line or lines, the meeting edges of said blank remaining intact, for the purposes set forth. 4th. A blank for a sheet metal can having a detachable strip demarcated by a weakening line or weakening lines and a slit or opening through the metal situated between said line or lines, the meeting edges of said blank remaining intact, for the purposes set forth. 5th. A blank for a sheet metal can having a detachable strip with a tongue or starting end demarcated by weakening lines and a slit or opening through the metal at the end of said tongue or starting end, for the purpose set forth. 6th. A blank for a sheet metal can having a detachable strip with a tongue or starting end demarcated by weakening lines and a slit, the slit forming a connection between the weakening lines a short distance in from one of the meeting edges of the blank. 7th. A blank for a sheet metal can having a detachable strip formed by a weakening line running parallel with and a short distance from the edge of the blank, that is at right angles to the meeting edges thereof and a slit running into such weakening line from one of said meeting edges. 8th. A sheet metal can having a detachable strip of curved cross section, for the purpose set forth. 9th. In a can having a detachable strip terminating in a tongue portion, an aperture or opening at or near the base of said tongue portion, for the purpose set forth. 10th. In cans having detachable strips terminating in tongue portions, a flared channel at or near the base of said tongue portion. 11th. In cans having detachable strips terminating in tongue portions, a slit at or near the base of such tongue portion having one of its edges flared, for the purpose set forth. 12th. In cans having detachable strips terminating in tongue portions, a tongue portion with its edge flared at or near its base, for the purpose set forth. 13th. In cans having detachable strips terminating in tongue portions, a channel with one or more openings at the edge

of the tongue for the introduction of solder beneath the base of said tongue portion. 14th. A blank for a sheet metal can each of the meeting edges of which to be joined has overlapping portions on opposite sides of the other, for the purpose set forth. 15th. A blank for a sheet metal can, one of the two meeting edges of which has a slit or opening formed in it to receive the opposite meeting edge and allow each edge to have overlapping portions on opposite sides of the other, for the purpose set forth. 16th. In a sheet metal can, a weakening line irregular in cross section, for the purpose set forth. 17th. In a sheet metal can, a weakening line in cross section substantially of an angular form with the sides of the angle differing in length, for the purpose set forth. 18th. In a sheet metal can, a weakening line made up of a series of parallel lines of abrasion in close proximity to each other, for the purpose set forth. 19th. In a sheet metal can, a weakening line made up of a series of parallel lines of abrasion in close proximity to each other and in part on one side of the metal and in part on the other side thereof as shown.

No. 51,561. Can. (Boîte métallique.)



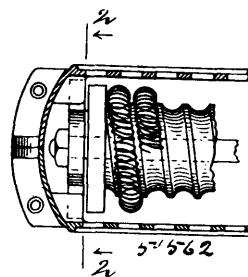
William Pratt, Montreal, Quebec, Canada, 5th March, 1896; 6 years. (Filed 13th June, 1894.)

Claim.—1st. Securing together the parts of a can by the engagement or intersection of the respective metals of such parts at a series of points around the circumference or in the line of the joints of the can. 2nd. As a method of securing together the parts of a can, first forming openings in one part and forcing the metal of the other part into such openings. 3rd. Securing the cover of a can to the body thereof by the engagement or intersection of the respective metals of the body and cover at a series of points around the circumference of the can. 4th. As a means for securing the flanged cover of a can to the body thereof, a series of coinciding points of engagement in the respective metals of the body and cover flange for the purpose set forth. 5th. In a can, the combination with the body and the cover therefor, the latter having a flange fitting against the body, of a series of coincident connecting openings formed through the cover flange and body for the purpose set forth. 6th. As a method of securing the cover of a can to the body thereof, first forming openings in the can body, fitting the cover in place with its flange across such openings and forcing the metal of the flange into same. 7th. In a can, the combination with the body and the cover therefor, the latter having a flange fitting against the body, of a series of coincident connecting openings formed through the cover flange and body with a finishing eyelet set in such openings. 8th. In a can, the combination with the body and the cover therefor, the latter having a flange fitting against the body, and both body and flange being perforated, of a removable bail or carrying handle with its ends passed through said perforations. 9th. A bail or handle for cans adapted to be secured in place by its ends passing through openings in the can body and consisting of a strip of wire bent to form a handle portion proper and having one or more lengths projecting inwardly across the mouth of the can for the purpose set forth. 10th. A bail or handle for cans adapted to be secured in place by its ends passing through openings in the can body and consisting of a strip of wire bent to form a semi-circular handle portion proper having depressions at the ends of such semi-circular portion and having one or more lengths projecting inwardly across the mouth of the can for the purpose set forth. 11th. In a can, the combination with the body and the cover therefor, the latter having an upwardly turned flange and both body and flange being perforated, of a bail or carrying handle passed through the perforations therein. 12th. A bail or handle for cans adapted to be secured in place by its ends passing through openings in the can body and consisting of a strip of wire bent to form a handle portion proper and having lengths, (one longer than the other), projecting inwardly across the mouth of the can, together with a sleeve or tubular section adapted to be fitted over such lengths to secure a continuous support across the mouth of the can for the purpose set forth. 13th. A bail or handle for cans adapted to be secured in place by its ends passing through openings in the can body and consisting of a strip of wire bent to form a handle portions proper and having lengths, one longer than the other, projecting inwardly

across the mouth of the can, and the longer length bent out of line with the shorter or at an angle thereto for the purpose set forth. 14th. A bail or handle for cans adapted to be secured in place by its ends passing through openings in the can body and consisting of a strip of wire bent to form a handle portion proper and having lengths, one longer than the other, projecting inwardly across the mouth of the can, the longer length being slightly curved, and a sleeve or tubular section adapted to be fitted over such lengths for the purpose set forth. 15th. In a paint or other can having a transverse wire or support across the mouth thereof, and a removable cover, the latter formed with a transverse or diametrical depression in its underside to accommodate and fit over said wire or support. 16th. In a can, the combination with the lower edge of the body having a flanged circumferential recess or concavity on its inner side, of a bottom piece formed with a peripheral flange corresponding in cross section to the shape of said recess and set into same with its flange inside the can for the purpose set forth. 17th. In a can, the combination with the body and the cover therefor, the latter having a flange fitting against the body, and connected therewith at a series of points around the circumference of the can, of a finger hold located near the periphery or edge of the cover for the purpose set forth. 18th. In a can, the combination with the body and the cover therefor, the latter having a flange fitting against the body and connected therewith at a series of points around the circumference of the can, of a pivoted finger hold located near the periphery or edge of the cover, for the purpose set forth.

No. 51,562. Electric Heater.

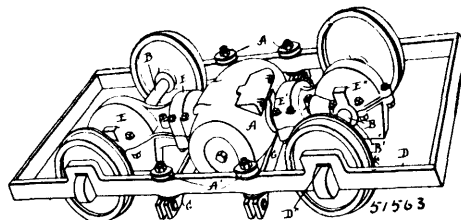
(Appareil de chauffage électrique)



The Consolidated Car Heating Company, Assignee of James F. McElroy, both of Albany, New York, U.S.A., 6th March, 1896; 6 years. (Filed 3th August, 1895.)

Claim.—1st. In an electric heater, a radiator consisting of a lattice work near the upper portion thereof, a plain solid surface immediately below said lattice work capable of containing the name of the manufacturer of the radiator, and serving as a protection for the heated wire, an opening in the radiator at the bottom, all constructed in such a manner that the air in the apartment shall enter the radiator from the bottom and pass out through the lattice work at the top, substantially as described and for the purpose set forth. 2nd. In an electric heater, a radiator consisting of two similarly constructed surfaces separated a short distance from each other connected at the top with a curved cap, each of said surfaces provided with a lattice work near the top, an opening at the bottom of said radiator through which the air of the apartment may pass between the surfaces of the radiator and escape through the lattice work near the top, substantially as described and for the purpose set forth.

No. 51,563. Power Gearing and Current Controlling Apparatus for Electric Cars. (Engrenage et appareil de courant à contrôle pour chars électriques.)



Elmer Ambrose Sperry, Cleveland, Ohio, U.S.A., 6th March, 1896; 6 years. (Filed 8th March, 1895.)

Claim.—1st. A motor truck comprising a frame, shafts geared to the axles and supported by said frame, but laterally movable with relation thereto, supports for a motor within said frame, and means for coupling the motive shaft of the motor to said shafts whereby the action of said motive shaft is transmitted to the axles, as set forth. 2nd. A motor truck comprising a frame, shafts geared to the axles and having bearings supported by said frame but movable with relation thereto, supports for a motor within said frame, and means

for coupling the shaft of the motor to said shafts, as set forth. 3rd. In a truck for a vehicle, power-transmitting gearing mounted upon an axle of the truck, and extending to a cross bar of the truck, in combination with a yielding joint between it and the cross bar. 4th. In a truck for a vehicle, a truck frame, a power-transmitting gearing mounted upon an axle of the truck, a cross bar to which such power transmitting gearing is attached at a point above or below the horizontal centre of the truck, in combination with seats for the end of the said cross bar attached to the truck frame, whereby the said bar may pass approximately straight from one seat to the other without upward or downward flexure, substantially for the purpose specified. 5th. In a motor car, an axle, a motor supported therefrom, means between the motor and the axle allowing for more or less relative movement between the two, a power gearing connecting the motor and the said axle, a yielding coupling forming a part of such gearing and a casing suitably mounted between the motor and the axle. 6th. In a motor car, an axle a motor supported therefrom, means between the motor and the axle allowing for more or less relative movement between the two, a power gearing connecting the motor and the said axle, a yielding coupling forming a part of such gearing, and a casing inclosing the power gearing, and a separate casing for the coupling mounted, substantially as specified. 7th. In a motor car, a motor, a running gear for the car, a driving connection from the motor to the gear, two inclosing housings for the driving connection, one mounted upon the motor and the other upon the axle, in combination with a flexible wall forming a part of one of such housings. 8th. In a power gearing for cars, a truck frame, a part mounted upon the truck frame, an axle, a portion mounted upon the axle, in combination with an attachment between the truck-mounted part and the axle mounted part, and an equalizer spring forming a portion of such attachment. 9th. In a motor car an axle, a motor supported therefrom, means between the motor and the axle allowing for more or less relative movement between the two, a power gearing from the motor to the axle consisting in part of a moving element, a journalled frame for such element mounted upon the axle, an extension from such journalled part running toward the motor, a suitable support for such extension, in combination with a resilient medium forming a part of such extension. 10th. In a motor car, an axle, a motor supported therefrom, means between the motor and the axle allowing for more or less relative movement between the two, a power gearing from the motor to the axle consisting in part of a moving element, a journalled frame for such element mounted upon the axle, an extension from such journalled part running toward the motor, a suitable support for such extension flexible in one plane but yielding in another forming a part of said extension. 11th. In a power transmission for a vehicle, a motor, an axle for the vehicle, a yielding support between the two, a power transmission extending from the motor to the axle, a yielding coupling forming a part of the power transmission, an inclosing casing for the said power transmission mounted upon the axle and extending toward the motor, and an additional support for the casing constituting a universal joint. 12th. In a power transmission, two journals mounted for limited relative movement, a casing extending from one journal to the other, a flexible disc forming a part of such casing, in combination with a clamp for one edge of the disc. 13th. In a motor car, a motor, the running gear of the car, power driving connection from the motor to the running gear, an inclosing housing for the connection consisting of two independent casings, one only mounted upon the axle, and the other connected rigidly with the motor. 14th. In a driving device, two rotating shafts or elements, links pivoted at a distance from and upon opposite sides of the centre upon each, the links upon one element being opposite to those of the other, the free ends of the links being articulated in pairs, and means for mechanically connecting the articulate points. 15th. In a driving device, two rotating shafts or elements, one provided at a distance from the centre with cylindrical pivots, the other element provided at a distance from the centre with the spherical surfaced pivots, links fitting the pivots, the links upon one element being opposite to those of the other, and the free ends of the links articulated. 16th. In a power truck, two revolving portions mounted for relative independent movement, a mechanical coupling for such revolving portions, in combination with a resilient medium forming a part of such coupling. 17th. In a power truck, two revolving portions mounted for relative independent movement, a mechanical coupling for such revolving portions combined with a slip joint or friction surface forming a part of such coupling. 18th. In a motor car, a motor, a running gear for the car, power connection from the motor to the running gear, an inclosing housing for the connection consisting of two independent casings, and a spherical surface forming a seat or support for said casing for the purpose specified.

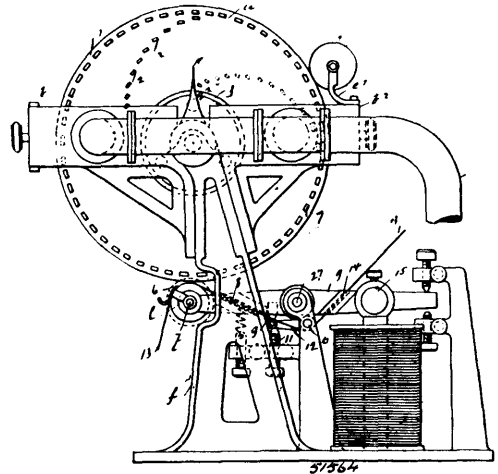
No. 51,564. Type Writing Telegraph.

(Télégraph imprimant.)

Adolf Merrel and Artur Duffek, both of Prague Bohemia, Austria, Empire, 6th March, 1896; 6 years. (Filed 8th August, 1895.)

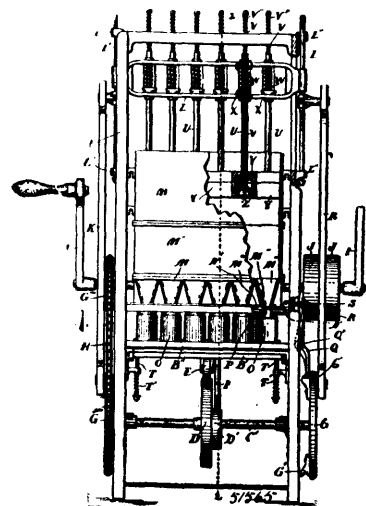
Claim.—1st. The combination in a printing telegraph of the revolving disc *a*, and a roller *l* geared together to have the same peripheral speed, a paper operating mechanism for drawing the paper between the said disc and said roller, key levers *n*, the batteries M and N, said paper being fed as soon as and for as long as

one of the keys *n* is pressed down to bring into action the batteries M and N, said key when released cutting out the battery M, and



the said battery N controlling the rotation of the disc *a*, and means for controlling said battery N, substantially as described. 2nd. In combination, the printing disc *a*, paper feeding mechanism, the electric motor having a commutator 82-73-83, a relay G, and connections between the motor and the revolving disc, and motor comprising also the electro-magnets 68-69-70 and armatures 71, the latter nearly touching the electro-magnets and arranged so that if one magnet is exactly covered by the armature the next one begins to be nearly touched by the next armature, substantially as described. 3rd. In combination, in a printing telegraph, the printing disc and controlling mechanism therefor, including a brake comprising a disc 60 with a conical face near its periphery, a pivoted block 62 arranged to be pressed thereon by its centrifugal force, the radial spring adjustable connected to the block to restrain the same, said spring being adjustable towards and from the pivot of the block and means for adjusting the brake disc and block towards and from each other axially of the disc, substantially as described. 4th. In a printing telegraph, a relay consisting of an electro-magnet 55, having an adjustable core with means for adjusting the same, a permanent or non-adjustable magnet 54, and an armature operating between the magnets, substantially as described. 5th. In a printing telegraph, the combination of a revolving type disc and its paper roller *l* with operating means, an electric motor for turning the type disc relays F, G, transmitters D, and E keys, and K, the signal and batteries including the batteries M and N, and the finger keys *n*, the said keys J, through the transmitters and battery being arranged to operate the calling signal and by adjusting the transmitters to the second position, and pressing upon one of the finger keys *n*, the battery M, is placed in action to control the paper movement to receive the impression from the type disc, the said key K being arranged to stop the motor, substantially as described.

No. 51,565. Can Filler. (Machine pour remplir les bidons.)



Charles W. Shedd, Grand Rapids, Michigan, U.S.A., 6th March, 1896; 6 years. (Filed 19th November, 1894.)

Claim.—1st. In a can filling machine, the combination of a hopper or receptacles for receiving the material, a filling device for

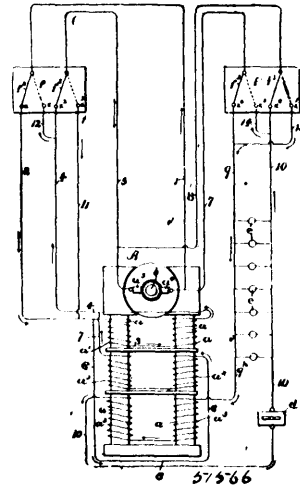
directing, or forcing, the material into the nozzles which deliver the same to the cans and a plurality of nozzles attached to the single can filling device, substantially as described. 2nd. In a can filling device, the combination of a filler, a plurality of plungers moving in said filler, and suitable nozzles for directing the material to the cans, substantially as described. 3rd. In combination with a hopper filling device or tube, a plurality of plungers adapted to move in said filling device, a spring connected with each plunger to prevent too rigid pressure and a series of nozzles, substantially as described. 4th. In combination with a hopper, a filler device, a plurality of plungers, moving under spring tension, a plurality of nozzles for directing the material to the cans and a suitable mechanism for moving the cans automatically in position to be filled, substantially as described. 5th. In combination with a hopper, a filling device, a suitable plunger moving in said filling device and a detachable nozzle, substantially as described. 6th. In combination with a filling device, a plurality of plungers and a plurality of detachable nozzles adapted to be attached and removed from filling device, substantially as described. 7th. In combination with a filling device, a nozzle attached thereto, a plunger moving in said filling device, a can support and spring, the same adapted to move the can under spring pressure toward the nozzle, substantially as described. 8th. In combination with a filling device, a series of nozzles attached thereto, a can feeding mechanism with adjustable walls for adapting the same to can of different sizes, substantially as described. 9th. In combination with a plunger, a filler, a sliding cut-off, and a spring adapted to prevent the rigid movement of the cut-off, substantially as described. 10th. In combination with a plunger, a filler and a yielding cut-off moving beneath the filler, substantially as described. 11th. In combination with a salt receptacle arranged in a movable plate, a series of movable fingers adapted to feed the salt to the salt receptacle and openings registering with each can as it passes under the salt receptacle, substantially as described. 12th. The combination of a movable bars, a finger attached thereto, an opening for receiving the salt from any suitable receptacle, a movable plate bringing the salt pocket in position to register with an opening over the can to receive the salt, substantially as described. 13th. In combination with each other, two series of salt receptacles and openings adapted to register with two series of cans of different sizes, substantially as described. 14th. In combination with a power feed can filling device, constructed, substantially as described suitable crank mechanism, as I, for operating the same by hand when required, substantially as described. 15th. In combination with a filling device, a sliding cut-off, a spring adapting the slide to be moved under spring pressure and suitable mechanism for automatically operating said cut-off, substantially as described. 16th. In combination with the sliding cut-off, the filler, a spring adapted to give spring pressure a lever connected to said slide, and a series of cans for operating said lever, and thereby the sliding cutoff, substantially as described. 17th. In combination with the can support which supports the can beneath the filler, a roller travelling upon the can, a spring adapted to give spring pressure to the can support and suitable mechanism for revolving the can wheel, in order to raise and lower the can to be filled, substantially as described. 18th. In a can filling device, the arrangement of a can fed consisting of two horizontal sections and a perpendicular section, substantially as described. 19th. In combination with the hopper, a filling device, a plurality of plungers, one or more of which have a fixed movement and a plurality of nozzles for directing the material to the cans, substantially as described. 20th. In combination with a hopper, a filling device, a plurality of plungers one or more of which move under spring tension and a plurality of nozzles to direct the material to the cans, substantially as described. 21st. In combination with the salt chamber having an opening in its bottom registering with the can beneath a shield to protect said opening and a slide moving between said shield to protect said opening and a salt receptacle which is thrown in and out of register with said opening, substantially as described.

No. 51,566. Electric Lighting System and Dynamo for Cars. (Système d'éclairage électrique et dynamo pour chars.)

The National Electric Car Lighting Company, New York, State of New York, assignee of Morris Moskowitz, Newark, New Jersey, both in the U.S.A., 6th March, 1896; 6 years. (Filed 22nd July, 1895.)

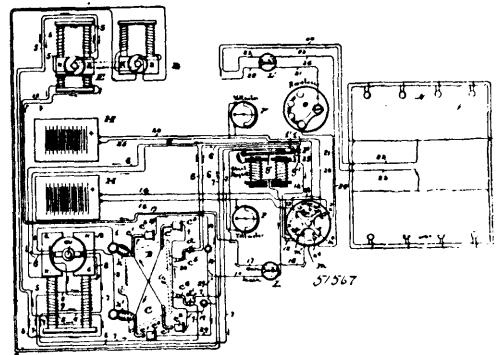
Claim.—1st. The combination, with a working or main circuit containing lamps or other translating devices, of a dynamo in said main circuit, and wound in a differential series coil around the field of said dynamo, said dynamo having a self-excited field coil in circuit with its armature, and an opposing high resistance field coil fed from the dynamo, substantially as and for the purpose set forth. 2nd. The combination, with a working or main circuit containing lamps or other translating devices, of a dynamo in said main circuit, and a reversible driving power for operating the same, said main circuit being wound in a differential series coil around the field of the dynamo, a pole-changer in said main circuit a self-excited field coil on said dynamo in circuit with its armature, an opposing high resistance field coil in circuit with and fed from said dynamo, and a pole-changer in circuit with the dynamo armature and said field coils, substantially as and for the purposes set forth. 3rd. The com-

ination, with a dynamo having its armature in circuit with a differential high resistance coil which tends to cut down the field magne-



tism, of a reversible driving power, and a pole-changer responsive to the reversal of said power, and a main circuit connected with said dynamo and wound in a differential series coil around the field thereof, and co-acting with said differential high resistance coil, substantially as and for the purposes set forth. 4th. The combination, with a dynamo having its armature in circuit with a differential high resistance coil which tends to cut down the field magnetism, of a reversible driving power, and a pole-changer responsive to the reversal of said power, and a main circuit connected with said dynamo and wound in a differential series coil around the field thereof, and co-acting with said differential high resistance coil, and a pole-changer in said main circuit, substantially as and for the purposes set forth. 5th. The combination, of a dynamo mounted on a car truck and driven from the car-wheel axle, a field-exiting coil fed from said dynamo, an opposing differential high resistance field coil also fed from said dynamo, a pole-changer in the connecting circuits, and a main circuit connected with said dynamo wound in a differential series coil around the field of said dynamo, and co-acting with said differential high resistance coil to cut down the field magnetism, substantially as and for the purposes set forth. 6th. The combination, of a dynamo mounted on a car truck and driven from the car-wheel axle, a field exiting coil fed from said dynamo, opposing differential high resistance field coil also fed from said dynamo, a pole-changer in the connecting circuits, and a main circuit connected with said dynamo wound in a differential series coil around the field of said dynamo, and co-acting with said differential high resistance coil to cut down the field magnetism, and a pole-changer in said main circuit, substantially as and for the purposes set forth. 7th. A dynamo-electric machine, subject to variable armature speed, having a self-excited field coil in shunt with its armature, an opposing differential high resistance field coil also in shunt with the armature of said dynamo, and a differential series field coil, in main circuit with the armature of the dynamo, co-acting with said differential high resistance coil, to cut down the field magnetism of said dynamo substantially as and for the purposes set forth.

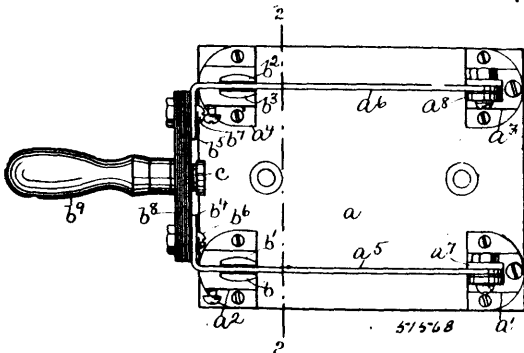
No. 51,567. Means for Generating Electricity from a Car-Wheel Axle. (Moyen de générer l'électricité d'un essieu de char.)



The National Electric Car Lighting Company, New York, State of New York, U.S.A., 6th March, 1896; 6 years. (Filed 22nd July, 1895.)

Claim.—1st. The combination, with a working and a lamp circuit, containing lamps or other translating devices, of a main dynamo operated under varying speeds and subject to armature reversal, a pole-changer and a dynamotor adapted to equalize the voltage of the dynamo in the main circuit, said main dynamo being self exciting at a slow speed, to energize said pole-changer and the dynamotor, and said main dynamo, at a fast speed, having its fields excited and regulated independently by the dynamotor, substantially as and for the purposes set forth. 2nd. The combination, with a working and a lamp circuit, containing lamps or other translating devices, of a pair of storage batteries, a main dynamo operated under varying speeds and subject to armature reversal, a switch for connecting either one of said batteries directly in circuit with the main dynamo and the other of said batteries in circuit with the lamp circuit, a pole-changer, and a dynamotor adapted to equalize the voltage of the dynamo in the main circuit, said dynamo being self-exciting at a slow speed, and at a fast speed, having its fields excited and regulated independently by the dynamotor, substantially as and for the purposes set forth. 3rd. The combination, with a working and a lamp circuit, containing lamps or other translating devices, of a main dynamo operated under varying speeds and subject to armature reversal, a pole-changer in circuit with said main dynamo, said dynamo being wound for self-excitation, a dynamotor in circuit with said dynamo, said dynamotor being also wound for self-excitation in two separate circuits, an automatic switch F in said self-excited circuits, and said dynamotor being adapted to equalize the voltage of the dynamo in the main circuit, and the fields of the dynamo being excited independently by the dynamotor, substantially as and for the purposes set forth. 4th. The combination, with a working and a lamp circuit, containing lamps or other translating devices, of a pair of storage batteries, a main dynamo operated under varying speeds and subject to armature reversal, a switch connecting either one of said batteries directly in circuit with the main dynamo and the other of said batteries in circuit with the lamp circuit, a pole-changer in circuit with said main dynamo, said dynamo being wound for self-excitation, a dynamotor in circuit with said dynamo, said dynamotor being also wound for self-excitation in two separate circuits, an automatic switch F in self-excited circuit, and said dynamotor being adapted to equalize the voltage of the main dynamo in the main circuit, and the fields of said dynamo being independently excited by the dynamotor, substantially as and for the purposes set forth. 5th. The combination, with a working and a lamp circuit, containing lamps or other translating devices, of a main dynamo operated under varying speeds and subject to armature reversal, a pole-changer in said main circuit, having magnets adapted to be energized by the feeble current induced by the residual magnetism in the dead fields of the dynamo, to complete the main circuit, and a dynamotor adapted to excite and equalize the voltage of the dynamo in the main circuit, said dynamotor being connected up in the main circuit and also connected with the main dynamo by a self-excited circuit, whereby the main dynamo, at a slow speed, excites the said dynamotor, but at a fast speed, the dynamotor being adapted to excite the fields of the main dynamo, substantially as and for the purposes set forth.

No. 51,568. Electric Switch. (Commutateur électrique.)

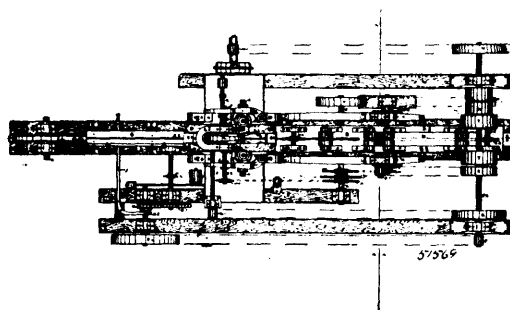


James Leonard Wesson, Boston, assignee of John Matthew Cronin, Cambridge, both of Massachusetts, U.S.A., 6th March, 1896; 6 years. (Filed 21st March, 1895.)

Claim.—1st. The combination with a double pole switch provided with movable members a^5, a^6 , insulated from each other, a tie-bar connecting said members, a handle carried by said tie-bar, and an auxiliary circuit controller co-operating with the members a^5, a^6 , and adapted to be rendered operative by the said handle to electrically connect the said members, substantially as described. 2nd. The combination with a double pole switch provided with movable members a^5, a^6 , a tie-bar b^8 connecting the said members, a handle carried by said tie-bar, and an auxiliary controller adapted to be brought in contact with the movable members by operation of the said handle, substantially as described.

No. 51,569. Stave Making Machine.

(Machine à douelles.)



John W. Lahey and Thomas G. Lahey, both of South Brisbane, Queensland, Australia, 6th March, 1896; 6 years. (Filed 22nd December, 1894.)

Claim.—1st. In combination with a machine, such as described, the steel carrier band Z^2 scribed with a central line and fitted with studs E^1 , substantially as and for the purpose described and set forth. 2nd. In combination with a machine, such as described, the steel carrier band Z^2 , scribed with a centre line and fitted with studs E^1 at equal distances and with the adjustable studs E^2 , and having a number of holes to accommodate the same, substantially as and for the purposes described and set forth. 3rd. In combination with a steel carrier band in a machine such as described, the steel studs E^1 with knife edge projections E^3 and tapered washer Y^2 , substantially as and for the purposes described and set forth. 4th. In combination with a steel carrier band in a machine, such as described, the steel studs E^2 with knife point projection E^4 , and tapered washers Y^2 , substantially as and for the purposes described and set forth. 5th. In combination with a steel carrier band in a machine such as described, the manner of fixing the studs E^1 and E^2 in the carrier band Z^2 , substantially as and for the purposes described and set forth. 6th. In combination with the steel carrier band Z^2 in a machine such as herein described, the driving wheel Z^4 with tapered recesses to receive the washers Y^2 , substantially as and for the purposes described and set forth. 7th. In combination with the steel carrier band Z^2 in a machine such as herein described, the driving-wheel Z^4 with tapered annular groove to receive the washers Y^2 , substantially as and for the purposes described and set forth. 8th. In combination with the steel carrier band Z^2 in a machine such as herein described, the driving-wheel Z^4 with tapered annular groove having holes drilled in exact positions to receive studs P^4 , substantially as shown at fig. 18 and described in the specification. 9th. In combination with the steel carrier band Z^2 in a machine such as herein described, the driving-wheel Z^4 with tapered annular groove having holes drilled in exact positions to receive studs P^4 , the interchangeable tapered studs P^4 , substantially as and for the purposes described and set forth. 10th. In combination with the steel carrier band Z^2 in a machine such as herein described, the wheel Z^1 with tapered annular groove to receive the washers Y^2 , substantially as and for the purposes described and set forth. 11th. In combination with a machine such as described, the steel table B with indicator lines and guide fence, substantially as and for the purposes described and set forth. 12th. In combination with a machine such as described, the manner of fixing the steel table B and the parts thereof, substantially as and for the purposes described and set forth. 13th. In combination with the table D^3 in a machine such as described, the hinged part D, substantially as and for the purposes described and set forth. 14th. In combination with the table D^3 in a machine such as described, the manner of working the hinged part D by means of the eccentric W^3 , substantially as described and set forth. 15th. In combination with a machine such as described, the pressure rollers B^2 with knife-edged head, substantially as and for the purposes described and set forth. 16th. In combination with a machine such as described, the pattern-wheel L with a scribed centre line, and indicator lines for setting the wheel, substantially as and for the purposes described and set forth. 17th. In combination with a machine such as described, the particular manner of fixing the pattern-wheel L in relation to the cutters T^2 , so that the effect of any imperfections in the shape of the rim of the pattern-wheel are modified on the staves produced, substantially as and for the pur-

poses set forth. 18th. In combination with the pattern-wheel L, the horse-shoe shaped casting G², carrying the bearings of same, substantially as and for the purposes set forth. 19th. In combination with the pattern-wheel L, a centre line scribed on its rim, substantially as and for the purposes set forth. 20th. In combination with a machine such as described, the arrangement of the spindles b driven from the top to avoid dust, &c., on the working parts, carrying the cutters T², with collars N², working in the bearings H¹ in the shanks H fitted into the swinging brackets G, substantially as set forth. 21st. In combination with a machine such as described, the special form of bearings H¹ arranged to throw the wear on one-half of the bearings ing only, and not at the joints, substantially as and for the purpose set forth. 22nd. In combination with a machine such as described, the shanks H, and the manner of adjusting them substantially as and for the purposes set forth. 23rd. In combination with a machine such as described, the swinging brackets G with slots P², and tapered pins G¹, and the manner of operating them, substantially as and for the purposes set forth. 24th. In combination with the hinged bracket G in a machine such as described, the tapered adjustable pins G¹ with set screws w, substantially as and for the purposes set forth. 25th. In combination with a machine such as described, the special form of brackets F, with tapered holes to receive the pins G¹, substantially as and for the purposes set forth. 26th. In combination with a machine such as herein described, the chain carrier-band V³, running on sprocket V² and X², with sharp steel projections V⁴, substantially as and for the purposes set forth. 27th. In combination with the chain carrier-band V³, the grooved pressure rollers Y, substantially as and for the purposes set forth. 28th. In combination with the chain carrier-band V³, the sharp steel projections V⁴, substantially as and for the purposes set forth. 29th. In combination with a machine such as herein described, the hinged frame X and the manner of fixing the same, substantially as and for the purposes set forth. 30th. In combination with a machine such as described, the manner of working the hinged frame X by means of the eccentric cams W², substantially as and for the purposes set forth. 31st. In combination with a machine such as described, the adjustable eccentric cams W², with slotted hole c² and the set-screws d, substantially as and for the purposes set forth. 32nd. In combination with a machine such as described, the manner of working the adjustable cams W², substantially as and for the purposes set forth. 33rd. In combination with a machine such as described, the cutter head S having plain and serrated knives, substantially as and for the purposes set forth. 34th. In combination with a machine such as described, the manner of fastening the knives a and m to the centre block, substantially as set forth. 35th. In combination with a cutter head in a machine such as described, the special form of knives a and m combined, having plain and serrated edges, and special centre slots for holding down bolts, substantially as and for the purposes set forth. 36th. In a machine such as herein described, the combination of the frame X hinged on to the bracket r by the tapered pin X¹, carrying the cutter S, resting on the revolving adjustable eccentrics W², and working in conjunction with the hinged part D of the table D², and the chain feed belt V³, substantially as and for the purposes set forth. 37th. In combination with a machine such as described, the cutter-head t with concave, plain and serrated knives, substantially as and for the purposes set forth. 38th. In combination with a machine such as described, the cutter-heads T² formed of a gang of circular saws ground in place, substantially as and for the purposes set forth. 39th. In combination with a machine such as described, the alternative cutter-head T², constructed in a similar manner to S, substantially as and for the purposes set forth. 40th. In combination with a machine such as described, the alternative cutter-head T² made of one, two, or more saws set askew on the spindle b, as shown at fig. 22, substantially as and for the purposes set forth. 41st. In combination with a machine such as described, the alternative cutter-head t formed of a gang of circular saws, similar to T², ground in place with a concave cutting face, substantially as and for the purposes set forth. 42nd. In combination with a machine such as described, the alternative cutter S formed of a gang of circular saws, similar to T² ground in place with a convex cutting face, substantially as and for the purposes set forth. 43rd. In combination with a machine such as described, the manner of grinding the face of the cutter-heads T², t and S in place, substantially as set forth. 44th. In combination with a machine such as described, the alternative swinging bracket G², having curved slot P², substantially as and for the purposes set forth. 45th. In combination with a machine such as described, the manner of moving the rod I along the slot P², by means of the adjusting screw P³, substantially as set forth. 46th. In combination with the shank H in a machine such as described, the adjusting screw H², with attachments, substantially as and for the purposes described and set forth.

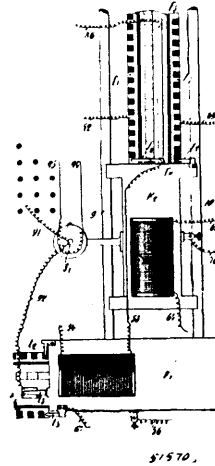
No. 51,570, Telephonic Communication.

(Communication téléphonique.)

Solomon Berditshewsky dit Apostoloff et Moïse Freudenberg, Paris, France, 6 Mars, 1896; 6 ans. (Filé le 2 Mai, 1895.)

Résumé.—1° Deux plaques parallèles horizontales, en ébonite ou autre matière isolante, placées à une certaine distance l'une de l'autre et disposées, pour chaque abonné au bureau central, toutes les plaques portant des contacts métalliques rangés dans le même

ordre qui correspondent aux différents abonnés, de telle façon que, d'une part, les contacts, occupant la même place, sur les différentes

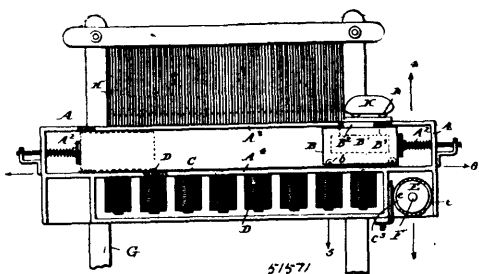


plaques, correspondent exclusivement à un seul abonné et que, d'autre part, dans chaque paire de plaques parallèles, les contacts du même abonné soient placés exactement en regard l'un de l'autre le fil de ligne d'un abonné quelconque étant relié à une pointe entourée d'un solénoïde pouvant se déplacer entre les deux plaques au bureau central, correspondant au dit abonné. 2° Dans chaque paire de plaques, c'est à dire pour chaque abonné, deux chariots dont l'un porte la pointe reliée au fil de ligne de l'abonné en question, pouvant au moyen de crochets disposés à cet effet, se déplacer entre les deux plaques le long de crémaillères faisant entre elles un angle quelconque droit, aigu ou obtus, chacun de ces chariots étant muni d'un électro-aimant qui fait avancer le chariot correspondant d'une dent sur sa crémaillère chaque fois que le dit électro-aimant est traversé par un courant, les crochets qui permettent aux chariots de se déplacer le long des crémaillères pouvant à un moment donné être soulevés pour que, sous l'action de ressorts appropriés, les chariots puissent revenir à leur point de départ. 3° En combinaison avec les chariots à électro-aimants ci-dessus revendiqués et pour chaque paire de plaques, c'est à dire pour chaque abonné, un système d'électro-aimant spécial, aboutissant, d'une part, à la terre, et, d'autre part, au fil de ligne de l'abonné, le dit électro-aimant que nous avons appelé électro-aimant relais et qui sert à fermer les circuits des électro-aimants, qui sont placés, dans chaque appareil du bureau central, étant formé d'un aimant en fer à cheval, dont l'un des pôles se divise en deux branches sur chacune desquelles est posée une bobine, un ancre relié au pôle positif de la batterie de la station centrale étant suspendue entre les deux bobines et son extrémité supérieure étant située entre deux bornes reliées aux appareils ainsi qu'il a été ci-dessus décrit et dans le but spécifié. 4° En combinaison avec les organes ci-dessus revendiqués, et pour chaque paire de plaques, c'est à dire pour chaque abonné, un système de distributeur de courant actionné par un électro-aimant fixe, dont le circuit peut à un moment donné être fermé par l'envoi de courants dans l'électro-aimant relais, le dit distributeur étant essentiellement formé d'une roue à rochet qui, sous l'action d'un cliquet attiré par l'électro-aimant, fait tourner un axe qui porte a, une roue métallique isolée de l'axe, dont la circonférence formée de segments successivement métalliques et en ébénite, est en contact avec deux balais, dont l'un est relié à la ligne de l'abonné et l'autre avec le pôle négatif de la batterie du bureau central, et ce en vue d'envoyer du bureau central dans l'appareil de l'abonné un courant négatif, chaque fois que la roue à rochet tourne d'une dent b, une roue métallique, isolée de l'axe, à quatre parties saillantes placées aux extrémités de deux diamètres perpendiculaires, et venant frotter sur des contacts métalliques, dont deux, diamétralement opposés sont reliés, d'une part, à la pointe mobile sur les contacts et, d'autre part, au fil de ligne de l'abonné et dont les deux autres, diamétralement opposés sont intercalés sur le circuit de l'électro-aimant du distributeur c, quatre baguettes métalliques isolées de l'axe et perpendiculaires et venant fermer successivement les circuits d'un solénoïde entourant la pointe et ceux des électro-aimants produisant le rappel des chariots à leurs points de départ ainsi qu'il a été ci-dessus décrit. 5° La disposition chez chaque abonné, en combinaison avec le poste téléphonique ordinaire, d'un électro-aimant relais U, analogue à l'électro-aimant remplacé au poste central et qui a pour but de distribuer dans les organes du mécanisme, placés chez chaque abonné, les courants arrivant chez cet abonné et envoyés soit automatiquement du poste central, lorsque le dit abonné manipule, soit par un autre abonné qui veut se mettre en communication avec le premier, les courants étant distribués par l'électro-aimant relais à trois électro-aimants ordinaires dont les deux premiers agissent sur des roues à chiffres et dont le troisième agit sur une roue portant les

indications, Repos-Appel-Sonnez-Parlez. 6° En combinaison avec les organes ci-dessus spécifiés placés chez chaque abonné un commutateur spécial qui peut tourner sous l'action d'un ressort spécial et qui, en temps normal, est maintenu arrêté, le dit commutateur pouvant être livré à lui-même par l'action du doigt de l'opérateur sur un bouton V, qui écarte du commutateur l'extrémité du levier qui le maintient et le commutateur en tournant dans ce cas envoyant au poste central une série d'impulsions positives produisant le déplacement du chariot F, chacune des impulsions positives allant au poste central étant suivie d'une impulsion négative allant du poste central chez l'abonné et ce, par suite d'un contact établi par le déplacement même du chariot F, l'impulsion négative dite de contrôle venant actionner l'un des électro-aimants des roues à chiffres, le commutateur pouvant encore être livré à lui-même par l'action du doigt de l'opérateur sur un bouton V², ce qui a en outre pour but de déplacer le commutateur le long de son axe, de telle sorte que par suite de la disposition des contacts sur lesquels frotte le commutateur, les impulsions positives du premier cas soient transformées en impulsions négatives, et réciproquement, les impulsions négatives produisant le déplacement du chariot F² et les impulsions positives de contrôle actionnant le deuxième électro-aimant des roues à chiffres.

No. 51,571. Electric Shuttle.

(Mécanisme électrique de navette pour métiers.)

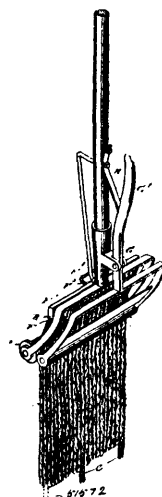


The Weaver Jacquard and Electric Shuttle Company, assignee of William Weaver, both of Norwalk, Connecticut, U.S.A., 7th March, 1896; 6 years. (Filed 9th October, 1895.)

Claim.—1st. The combination with a shuttle-carrier having an electro-magnet, of electrical connections for energizing the magnet in all positions of the carrier, electro-magnetic devices for moving the shuttle-carrier, and a magnetic shuttle moved by the shuttle-carrier, substantially as described. 2nd. The combination with a shuttle-carrier having an electro-magnet, of electrical connections for energizing the electro-magnet of the shuttle-carrier in all positions of the carrier, electro-magnetic devices for moving the carrier, and a magnetic shuttle moved by the carrier, substantially as described. 3rd. The combination with a shuttle-carrier having an electro-magnet, of electric conductors connected with a source of electrical supply and on which the shuttle-carrier moves, and connections between the conductors and the magnet for energizing the same at all positions of its movement, substantially as described. 4th. The combination with a race-way having a slot, of a shuttle-carrier having a magnet, the pole of which projects into the slot in the race-way, and means for moving the carrier, substantially as described. 5th. The combination with a frame or race-way, of a shuttle-carrier having a magnet, a series of electro-magnets arranged along the race-way, electrical connections for the magnets, and a circuit-controller for energizing the magnets in regular order to propel the shuttle-carrier, substantially as described. 6th. The combination with the frame or race-way of a loom, of a carrier having a magnet, a series of electro-magnets arranged along the race-way, electrical connections for the magnets, a circuit-controller operating in unison with the moving parts of the loom and constructed and arranged to close the circuits of the various magnets in regular succession to propel the carrier, substantially as described. 7th. The combination with the frame or race-way of a loom, of a shuttle-carrier having a magnet, a series of electro-magnets arranged along the race-way and electrical connections therefor, and a circuit-controller provided with contact pieces for closing the circuits of the respective magnets, the contact-pieces for closing the circuits of some of the magnets being elongated to produce a dwell, substantially as described. 8th. A reed for looms having a lateral extension integral therewith adapted to rest upon the top of the race-way and to form a channel between the adjacent reeds for the threads, substantially as described. 9th. The combination with a race-way, of a reed having a lateral extension integral therewith extending over the race-way, substantially as described. 10th. The combination with the race-way, of a reed having a lateral extension integral therewith extending over the race-way, a shuttle moving over the extension, and means for moving the shuttle, substantially as described. 11th. The combination with the race-way, of a series of reeds having lateral projections extending over the race-way, a magnetic shuttle mounted on and moving over the lateral projections, a shuttle-carrier, a magnet mounted on the shuttle-carrier, and means for moving the shuttle-carrier, substantially as described. 12th. In a loom, a series of metallic reeds having their ends magnetically connected in gangs and provided

with coils, substantially as described. 13th. In a loom, a series of reeds having their ends magnetically connected in gangs, coils connected to each gang, electric connections with the coils, and means for controlling the circuits through the coils, substantially as described. 14th. The combination with the frame or race-way, of a series of reeds having lateral extensions, means for magnetizing the reeds, a shuttle having magnetic material, and means for moving the shuttle, substantially as described. 15th. The combination with the frame, of a series of reeds having lateral extensions, means for magnetizing the reeds, a shuttle having magnetic material moving over the reeds, a shuttle-carrier having a magnet, electro-magnetic devices for moving the shuttle-carrier, and a circuit-controller controlling the circuits of the magnets and of the reeds, substantially as described. 16th. The combination with the frame or race-way, of the reeds and means for rendering the reeds magnetic, a magnetic shuttle, a shuttle-carrier having a magnet, and means for moving the shuttle-carrier, substantially as described. 17th. The combination with the frame or race-way, of reeds having lateral extensions, magnets connected with the reeds, a magnetic shuttle, a shuttle-carrier having a magnet, electric connections for energizing the magnet in all positions of the carrier, a series of magnets for moving the shuttle-carrier, and a circuit-controller controlling the circuits of the magnets and of the reeds, substantially as described.

No. 51,572. Mop. (Guipon.)



William R. Popplewell and Christian Newcome, assignees of Eugene Stebinger, all of Portland, Oregon, U.S.A., 7th March, 1896; 6 years. (Filed, 4th November, 1895.)

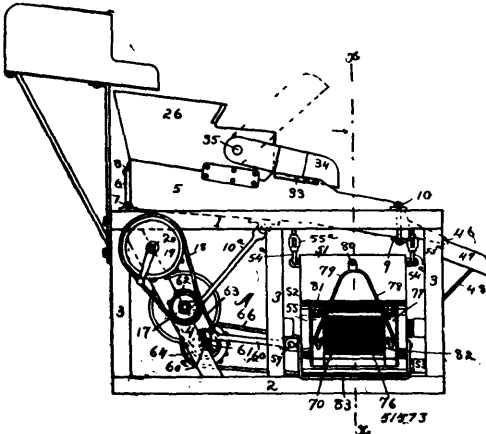
Claim.—1st. A mop, comprising a handled roller frame carrying a roller, a second frame pivoted on the first named frame and likewise carrying a roller, between which and the other roller passes the mop fabric, a guide held on the said handled frame, and a mop head fitted to slide on the said guide, and carrying the mop fabric passing between the said rollers, substantially as shown and described. 2nd. A mop, comprising a handled roller frame carrying a roller, a second frame pivoted on the first named frame and likewise carrying a roller, between which and the other roller passes the mop fabric, a spring for pressing the frames toward each other, a guide held on the said handled frame, a mop head fitted to slide on the said guide, and carrying the mop fabric passing between the said rollers, and a guard held on the said second roller frame, substantially as shown and described. 3rd. A mop, comprising a frame carrying a roller and provided with a handle, a second frame carrying a roller and pivoted to the first named frame, an upwardly inclined rod secured to the handle and frame carried thereby and a mop head provided with an eye loosely engaging the said rod, substantially as and for the purpose set forth. 4th. A mop, comprising a frame carrying a roller and provided with a handle, a second frame pivoted to the first frame, and provided with a handle, a spring secured to the handle of the main frame and engaging the handle of the pivoted frame, an inclined guide secured to the main handle and frame, and a mop head provided with an eye loosely engaging the said guide, substantially as herein shown and described.

No. 51,573. Separator or Concentrator for Ores, Etc.

(Appareil pour séparer ou concentrer, etc., le minéral.)

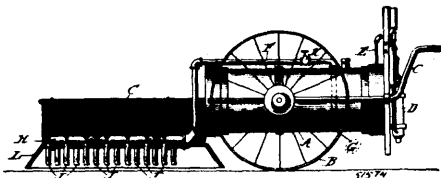
Edward E. Reynolds, Walter H. Spooner, and David Benschmol, all of Boston, assignees of George Melville Reed, Waltham, all in Massachusetts, U. S. A., 7th March, 1896; 6 years. (Filed 16th November, 1895.)

Claim.—1st. In a separator or concentrator, the combination of a reciprocating sluice-way, a shaking or vibrating fan case, means for



altering the position of said fan case, a fan, and separate or independent means for operating each of the parts, substantially as described. 2nd. In a separator or concentrator, a reciprocating sluice-way provided at its forward end with a sieve in combination with a fan case pivotally suspended beneath said sieve, a fan within the case, an inclined removable sieve located before the fan, and separate or independent means for operating the way, the case and the fan, substantially as described. 3rd. In a separator or concentrator, the combination with the sluice-way, the pivotally suspended fan case together with means for adjusting said case, of the main shaft and connecting rod, and the counter shaft and pitman, the latter being eccentrically connected with the fan case, substantially as shown and described. 4. In a separator or concentrator, the combination with the sluice-way, of a fan case having an inclined bottom opening into a receiving pan, a fan mounted in said case and means for operating the same, an inclined sieve located before the fan, and a pivoted or hinged riffle resting upon said inclined sieve, and a spring bail loosely attached to the riffle and adapted to be sprung beneath a projection of the case, substantially as described. 5th. In a separator or concentrator the fan case provided with a hopper and having its sides bevelled or inclined at the front, in combination with the removable inclined sieve supported between said sides upon projections from the case, a riffle pivoted or hinged to the case, and a spring bail loosely attached to the lower end of the riffle and adapted to be sprung beneath a projection on the hopper, substantially as described. 6th. In a separator or concentrator, the combination with the fan case, having a hopper and fan, and means for operating the two, of the inclined sieve having side pieces and formed with the backing of wire gauze, and the riffle frame provided with riffles and projecting side wings, and a spring bail loosely attached to the riffle and adapted to be sprung beneath a projection on the hopper, substantially as described.

No. 51,574. Apparatus for Repairing Asphalt Pavements. (*Appareil pour réparer les pavages en asphalte.*)

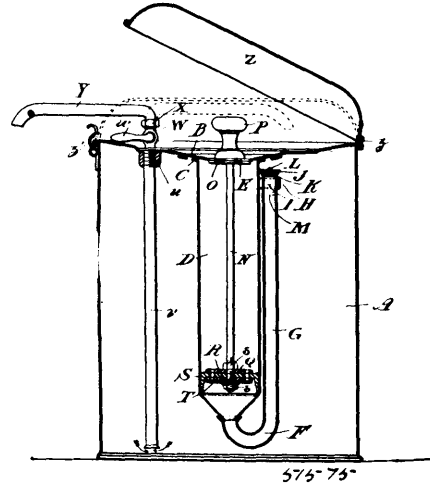


The United States Repair and Guaraty Company, assignee of Amos H. Perkins, both of Chicago, Illinois, U.S.A., 7th March, 1896; 6 years. (Filed 26th November, 1895.)

Claim.—1st. In an apparatus for repairing asphalt pavements, the combination with a series of hooded fluid burners and a reservoir for supplying fuel thereto, said reservoir and burners being portably mounted, of a supply pipe connecting the reservoir with the burners and exposed to the heat of the burners, substantially as described. 2nd. In an apparatus for repairing asphalt pavements, the combination with a series of fluid burners and a reservoir for supplying fuel thereto, said reservoir and burners being portably mounted, of a hood for said burners and a supply pipe connecting said burners with the reservoir, lying in a plane with or slightly above the hood, that portion of the hood underlying said pipe being perforated or cut away so as to expose said pipe to the heat of the burners, substantially as described. 3rd. In an apparatus for repairing asphalt pavements, the combination with a series of fluid burners and a reservoir for supplying fuel thereto, said reservoir and burners being portably mounted, of a supply pipe connecting the burners with the

reservoir, a hood for said burners lying in a plane with, or slightly below said pipe, said hood consisting of wire cloth or netting plastered with asbestos cement, or equivalent material, except that portion underlying the said pipe, substantially as described.

No. 51,575. Oil Can. (*Bidon à huile.*)

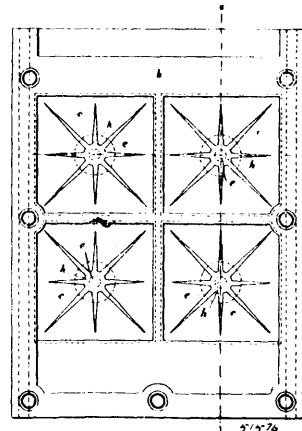


Andrew William Knittel, New Castle, Pennsylvania, U.S.A., 7th March, 1896; 6 years. (Filed 12th November, 1895.)

Claim.—1st. In an oil can, the combination of the can body provided with a central air inlet in its top, a pump cylinder secured to the top of the can and depending therein, an upright pump discharge pipe arranged at one side of the cylinder and connected at its lower end to the lower end of the cylinder and provided at its upper end with a flared valve seat, a band encircling the pump discharge pipe near its upper end and provided with guides at its opposite sides, a beveled check valve disc arranged to be seated in said flared valve seat, a valve bail encircling the top of said check valve and provided with opposite side portions sliding in the guides of said band and terminating at their lower extremities in flanged stops adapted to engage under said band, the valved piston arranged to work within the pump cylinder, and the oil discharge pipe projecting through the top of the can body and extending therein to a point near its bottom, substantially as set forth. 2nd. In an oil can, the combination with the liquid and air tight tank having a central air inlet opening in its top, a pump cylinder arranged within the tank under said central air inlet opening and having a valved discharge pipe opening into the tank near its top, a perforated guide plate attached to the top of the tank across the central air inlet opening, a piston rod working in said perforated guide plate and having a lower threaded end, perforated head plates clamped onto the threaded end of the piston rod, a correspondingly perforated cup or flanged packing disc arranged between said head plates, a flexible valve disc fitted onto the lower one of said head plates, and the oil discharge pipe leading out of the tank from a point near its bottom, substantially as set forth.

No. 51,576. Electrode for Storage Batteries.

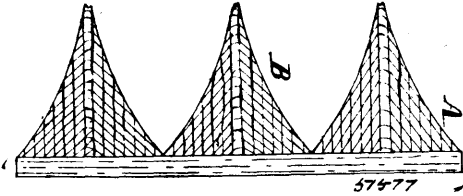
(*Electrode pour accumulateurs d'électricité.*)



Paul Ribbe, Berlin, Germany, 7th March, 1896; 6 years. (Filed 8th August, 1895.)

Claim.—1st. A double electrode for storage batteries composed of two plates of non-conducting material held together by an acid resisting substance between them, which plates have curved recesses for receiving the active mass, substantially as herein shown and described. 2nd. In a double electrode for storage batteries, the combination with two plates of non-conducting material held together by an acid resisting substance between them, which plates have recesses for receiving the active mass, discs between the plates, pins projecting from the discs into the recesses and spider frames attached to said pins and imbedded in the active mass in the recesses, substantially as herein shown and described. 3rd. In a double electrode for storage batteries, the combination with two plates of non-conducting material having recesses in the outer surfaces and recesses in the inner adjacent surfaces, of which inner recesses some are dovetailed and an acid resisting substance cast in between the plates and their inner recesses to hold the two plates together, substantially as herein shown and described.

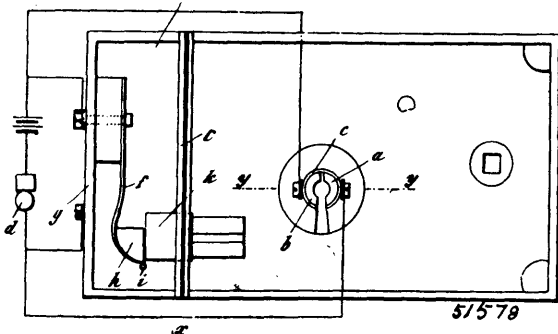
No. 51,577. Fly Escape. (Echappe-mouche.)



Annie Sarah Miles, Orancton, New Brunswick, Canada, 7th March, 1896; 6 years. (Filed 21st January, 1896.)

Claim.—1st. A fly escape consisting of a wire netting B, B in a number of conoidal, pyramidal or other cognate forms, attached to a frame A, A, A, and conveying to a number of small apertures C, C, C, C, substantially as described. 2nd. The combination in a fly screen or escape with egress apertures C, C, C, C, of the conveyance towards said egress apertures of the wire netting B, B, substantially as described. 3rd. A fly escape consisting of a wire netting B, B of a conoidal, pyramidal or other cognate form, such form being co-extensive with the entire netting and having a large base attached to a frame A, A, A, A and conveying to a small aperture C, substantially as described. 4th. The combination in a fly screen or escape with an egress aperture C, of the conveyance of the wire netting B, B, from all parts of the frame A, A, A, A to said egress aperture, substantially as described.

No. 51,578. Lock. (Serrure.)



Adrien Joseph Moullart, Paris, France, 7th March, 1896; 6 years. (Filed 6th July, 1895.)

Claim.—1st. A safety attachment for locks, comprising two spaced insulated parts located in the keyhole, and an electrically-operated signaling device inserted within the said parts, constructed and arranged substantially as hereinbefore described. 2nd. A safety attachment for locks, comprising two half sleeves insulated from each other and located within the keyhole, and an electrically-operated signaling device inserted within the said parts, constructed and arranged substantially as described. 3rd. A lock, having in its keyhole two conducting parts insulated from each other and arranged to come in contact with the key, constructed and arranged substantially as described. 4th. A lock, having in its keyhole two conducting half sleeves insulated from each other, and arranged to simultaneously come in contact with the key, constructed and arranged substantially as described. 5th. A lock, provided with a movable bolt, a spring arranged to come in contact with said bolt in one position thereof, and an insulating block secured to the spring and arranged to come in contact with the bolt in the other position thereof, constructed and arranged substantially as described. 6th. The combination of the lock casing, the insulated spring thereon, the insulating bolt adapted to come into contact with the spring, and the insulating block on the spring and adapted to temporarily engage

the bolt and prevent contact of the same with the spring, constructed and arranged substantially as described. 7th. The combination of the sliding bolt, the insulated spring, the insulating block on the spring arranged to temporarily prevent contact of the bolt with the spring, and an electrically-controlled signaling device in circuit with the bolt and the spring, constructed and arranged substantially as described.

No. 51,579. System of Purifying Saccharine Juices.

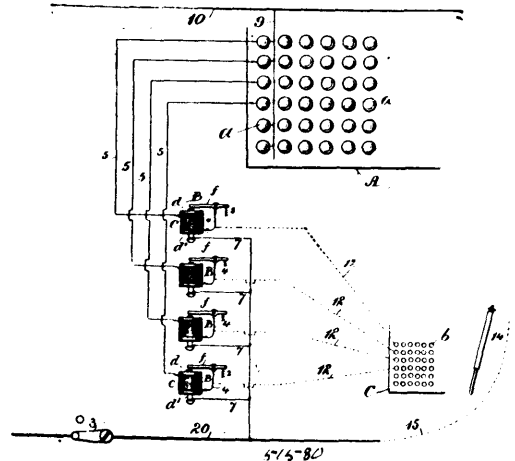
(Système de purification de jus de saccharine.)

Raoul Pelissier, Paris, France, 7th March, 1896; 18 years. (Filed 16th October, 1895.)

Claim.—1st. The process described for the purification of saccharine juices by electrolytic treatment, consisting in adding to the bath an energetic acid to produce a soluble salt which will form with lead insoluble or only slightly soluble salts, such first named salt being added to the saccharine juice in such manner that by its progressive decomposition during the electrolytic operation it maintains the anode in a clean or uncoated condition so as to allow of the completion of the purification of the whole of the saccharine juices, substantially as described. 2nd. In combination, the vat and anodes of a sinuous plated or corrugated form having a reciprocating motion imparted thereto, so as to produce an intimate and continuously repeated contact of the lead anode with the saccharine liquid in which it is immersed, substantially as described. 3rd. The process described for the purification of saccharine juices by electrolytic treatment, consisting in adding to the bath an energetic acid to produce a soluble salt which will form with lead insoluble or only slightly soluble salts, such first named salt being added to the saccharine juice in such manner that by its progressive decomposition during the electrolytic operation it maintains the anode in a clean or uncoated condition so as to allow of the completion of the purification of the whole of the saccharine juices, said anode being of sinuous form and reciprocating the same in the bath, substantially as described.

No. 51,580. Electric Light Display System.

(Système d'étalage de lumière électrique.)



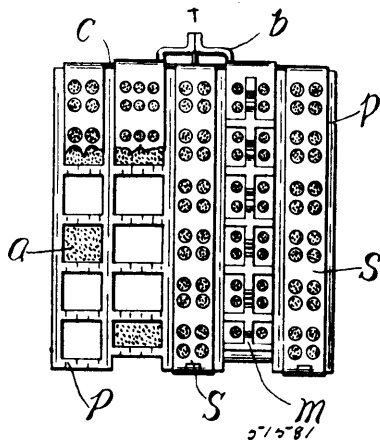
Jonathan Edwards Woodbridge, Duluth, Minnesota, U.S.A., 9th March, 1896; 6 years. (Filed 26th October, 1895.)

Claim.—1st. The combination with a display board having a multiplicity of electric lamps, of electro-magnetic switches one for each lamp and circuit connections through each lamp and its electro-magnetic switch and means for closing each of the circuits whereby the circuit that is closed through any lamp is maintained by the magnet holding switch, and a hand switch in the main circuit to turn off the current and extinguish the lamps and break the circuits at the switches, substantially as specified. 2nd. The combination with a display-board having a multiplicity of electric lamps, of electro-magnetic switches and circuits connections through each lamp and its electro-magnetic switch whereby the circuit that is closed through any lamp is maintained by the magnet holding switch, and a hand switch in the main circuit to turn off the current and extinguish the lamps and break the circuits at the switches, a writing board with contacts corresponding in number and position to the lamps, branch circuit connections to the contacts and a stylus circuit closer and flexible connections thereto for actuating the switches electrically, substantially as specified. 3rd. The combination with a display board having a multiplicity of electric lamps, of electro-magnetic switches and circuit connections through each lamp and its electro-magnetic switch whereby the current that is closed through any lamp is maintained by the magnet holding switch, and a hand switch in the main circuit to turn off the current and extinguish the lamps and break the circuits at the switches, a resistance in the main circuit for lessening the current to the lamps and a switch for short circuiting such resistance, substantially as specified. 4th. The com-

bination with a display board having a multiplicity of electric lamps, of electro-magnets one for each lamp, circuit connections passing through the armatures and cores for causing the armatures to act as switches, branch circuits from the magnets and a circuit closing stylus for energizing the electro-magnets and closing their switches, substantially as specified. 5th. The combination with a display board having a multiplicity of electric lamps, of electro-magnetic switches corresponding in number and position to the lamps, circuit connections through each lamp and its corresponding electro-magnetic switch, means for depressing the armatures of any desired number of said electro-magnetic switches to complete a permanent electric circuit through said electro-magnetic switches and lamps to light the lamps, which circuits are maintained by the magnets holding the switch armature, and a hand switch in the main circuit to turn off the current and extinguish all the lamps at once and break the currents at the respective switches, substantially as specified.

No. 51,581. Secondary Battery.

(*Accumulateur d'Electricité.*)

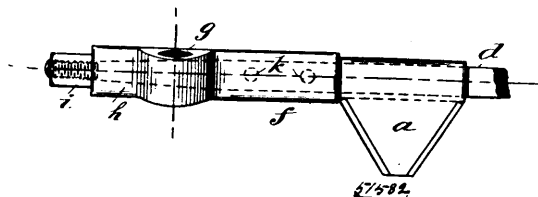


John Joseph Rooney, Brooklyn, New York, U.S.A., 9th March, 1896; 6 years. (Filed 15th October, 1895.)

Claim.—1st. A secondary battery-plate consisting of a grid of perforated press board paper with the sizing removed, absorptive material filling the perforations, and one or more conductors making contact with the absorptive material, substantially as described. 2nd. A secondary battery plate consisting of a grid of perforated press-board paper with the sizing removed, absorptive material filling the perforations, and one or more lead conductors making contact with the absorptive material, substantially as described. 3rd. A composite secondary-battery plate made up of a grid of insulating material, parallel rows of perforations, and alternated positive and negative conductors, each conductor being in contact with the material in one row of perforations, substantially as described. 4th. A composite secondary battery plate made up of a grid of porous paper, parallel rows of perforations therein, absorptive material occupying the perforations, and alternated positive and negative conductors, each conductor being in contact with the material in one row of perforations, substantially as described. 5th. A secondary battery consisting of a suitable liquid in which is immersed one or more composite secondary battery plates, each made up of a grip of insulating material, parallel rows of perforations therein, absorptive material occupying the perforations, and alternated positive and negative conductors, each conductor being in contact with the material in one row of perforations, substantially as described. 6th. A secondary battery consisting of a suitable liquid in which is immersed one or more composite secondary-battery plates each made up of a porous paper grid, parallel rows of perforations therein, absorptive material filling the perforations, and alternated positive and negative conductors, each conductor being in contact with the material in one row of perforations, substantially as described. 7th. A composite secondary battery plate consisting of a grid of non-conducting material, vertical rows of perforations therein, the grid having extensions in the line of alternate rows to form foot-rests, absorptive material filling the said perforations, and alternated positive and negative conductors, each in contact with the absorptive material in one row of perforations, substantially as described. 8th. A secondary battery which contains composite plates, each made up of a grid of non-conducting material, rows of perforations therein, absorptive material filling the perforations, alternated positive and negative conductors each in contact with the absorptive material in one row of perforations, the plates being packed with conductors of like polarity on adjacent plates in contact, substantially as described. 9th. The method of preparing secondary battery plates which consists in perforating a sheet of compressed paper and then reducing it to vegetable fibre by removing its sizing and filling the perforations with absorptive material and attaching conductors, substantially as described.

No. 51,582. Cutting Knife for Mowers.

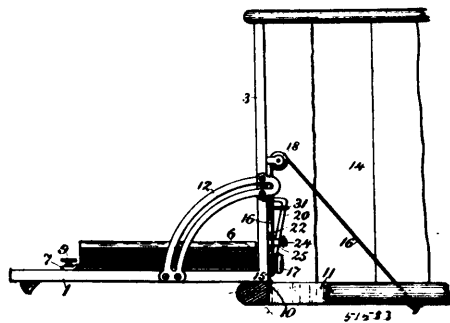
(*Couteaux de faucheuses.*)



Edward Pratt, Uxbridge, England, 9th March, 1896; 6 years. (Filed 7th January, 1896.)

Claim.—1st. The cutting knife for mowing and reaping machines, consisting of a triangular blade *a*, the back edge of which is bent round so as to form a socket *c*, which fits upon the knife bar *d*, in combination with a tongue *l*, fitting in a corresponding hole in the blade *a*, substantially as set forth and shown in the drawing. 2nd. The cutting knife for mowing and reaping machines, consisting of a triangular blade *a*, the back edge of which is bent round so as to form a socket *c*, which fits upon the knife bar, in combination with the cranked edge *m*, substantially as and for the purpose set forth and illustrated in figs. 10 and 11. 3rd. The bar head for mowing and reaping machines, consisting of a socket *f*, carrying the driving bracket *g*, and having a tapered bore, fitting upon the tapered bar *d*, and fixed by the nut *i*, substantially as set forth and illustrated. 4th. The combination of the tapered bar *d*, socketed cutting blades *a*, taper socketed bar-head *f*, and nuts *e* and *i*, substantially as set forth and illustrated.

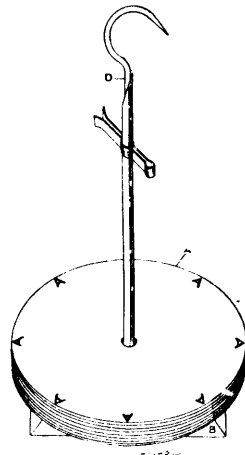
No. 51,583. Book Holder. (Bibliothèque.)



William Alexander Phillips, Listowel, Ontario, Canada, 9th March, 1896; 6 years. (Filed 10th January, 1896.)

Claim.—In a book holder, the combination of the table hinged at its rear edge to a frame into which it closes as specified, said table having means thereon to secure a book, the clamps secured to the lids of said book, the springs connected to said clamps, the cords connected to the outer ends of said springs at one end and to the casing frame at the opposite end, the slotted quadrants secured to said table and engaged by a pin in the casing, and the backboard secured at a right angle to the table, and having curved slots therein through which said clamps extended to connect said springs to operate the lids of a book, substantially as shown and described.

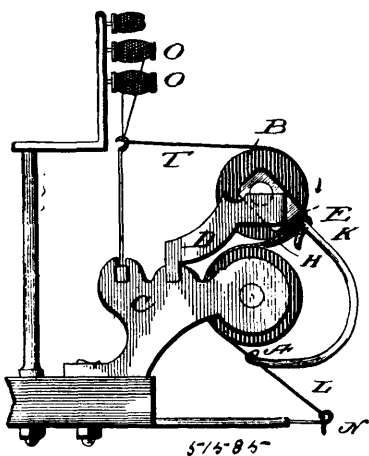
No. 51,584. Paper File. (Serre-papier.)



Robert Christie, Owen Sound, Ontario, Canada, 9th March, 1896; 6 years. (Filed 26th December, 1895.)

Claim.—A paper file consisting of the combination of a base or stand, a hollow tube fastened into base, a metal rod passing through and locking below tube, the circular marginal lettered index pieces and the steel clamp, all substantially as set forth.

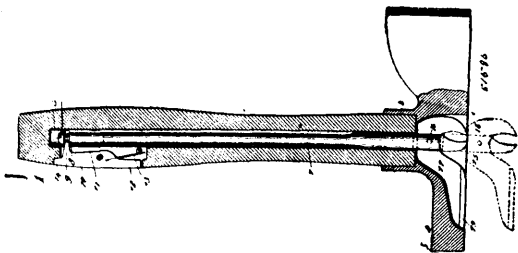
No. 51,585. Attachment for a Stop Motion for Twisting Machines. (*Attache pour mouvement d'arrêt de machine à retordre.*)



Thomas Henry Smith, Jamestown, New York, U.S.A., 9th March, 1896; 6 years. (Filed 2nd January, 1896.)

Claim.—1st. A stop attachment for twisting machines, consisting of a flat metal strip having a hole at one end to go over the journal or pin of the upper friction roll, the lower part of the piece turned at right angles, having one edge turned or lapped over to secure the upper end of a wire leg or lever, the other end of the same being bent to rest on the thread as it is twisted, the plate also holding one end of a flexible tongue, substantially as shown and for the purpose set forth. 2nd. A stop attachment for twisting machines, consisting of a flat metal piece provided with a hole at one end to go over the journal or pin of the loosely mounted roll as shown, the flat piece being bent or turned at one edge to secure a double flexible tongue and a wire leg curved at its lower end to rest on the thread while being twisted, as shown and described. 3rd. A stop attachment for twisting machines, consisting of a flexible double tongue adapted to engage the nip or bite of the twisting rolls, the tongue being securely mounted on a metal hanger that rests on the pin or journal of the upper roll, in combination with a metal leg secured to said hanger and curved so as not to come in contact with the rolls, its lower end being formed to rest on the thread being twisted, so as to hold the flexible tongue from the nip or bite of the roll as shown and set forth. 4th. A stop attachment for twisting machines, consisting of a flat metal piece E, mounted on the journal of the upper roll B, the wire leg or lever W, securely fastened to this metal piece at one end, the other end of piece W, being bent in a suitable form to rest on the thread, in combination with a flexible tongue H, S, securely fastened at one end by the metal piece E, and projecting beyond the metal to take the bite of the rolls, substantially as shown and set forth.

No. 51,586. Combination Tool. (*Outil à combinaison.*)

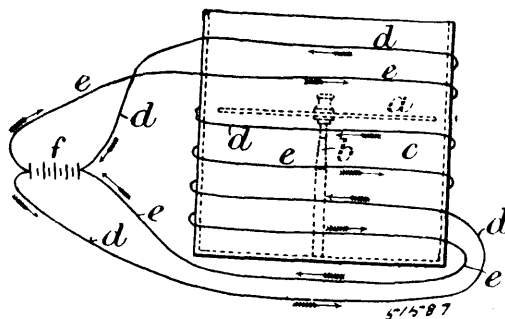


Oscar Ernest Morse and Everett Hiram Brundage, both of Dillon, Montana, U.S.A., 9th March, 1896; 6 years. (Filed 2nd January, 1896.)

Claim.—1st. A combination tool, comprising a head and a handle, said head being formed with a recess, a nail pulling device adapted to be included in the recess and provided with a shank having a jaw at one end and a second jaw pivoted to said shank and provided at its extremity with a shoe, and a latch adapted to engage the shank of the nail pulling device and hold the same in its inclosed position, said nail pulling device being adapted to be rotated when withdrawn from said recess, to bring it out of coincidence with said recess, substantially as set forth. 2nd. A combination tool, comprising a head having a socket to receive a handle and having a recess extending

through it and adapted to receive a nail pulling device, said handle having a longitudinal bore corresponding with the recess in the head and being provided with a dog having a tooth extending into said bore and a nail pulling device adapted to be inserted in the recess in the head and having a shank adapted to play in the bore of the handle and provided with a recess adapted to receive the tooth of the dog, and means for holding the nail pulling device out of said recess in the head while in use, substantially as set forth.

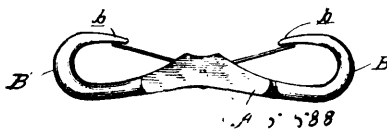
No. 51,587. Means for Increasing the Directive Force of Magnetic Needles. (*Moyen d'augmenter la force directrice des aiguilles aimantées.*)



John Sacheverell Gisborne, Barnsbury, England, 9th March, 1896; 6 years. (Filed 26th December, 1895.)

Claim.—The herein described method of increasing the directive force of magnetic needles, consisting in causing an electric current or currents to pass simultaneously in reverse directions around the magnetic needle or needles, substantially as set forth.

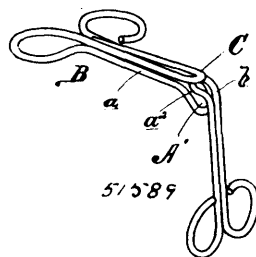
No. 51,588. Snap Hook. (*Crochet à ressort.*)



James C. Covert, West Troy, New York, U.S.A., 9th March, 1896; 6 years. (Filed 26th December, 1895.)

Claim.—1st. A snap hook comprising a frame having oppositely arranged hooks at opposite ends, an open centre and cross-bars at the centre spaced apart, and a keeper spring having its opposite ends arranged to engage the hooks and formed at its centre with a downwardly extending loop of a size to fit between the cross-bars, substantially as described. 2nd. A double snap hook comprising two oppositely arranged hooks, an intermediate seat, and a keeper spring, the opposite ends of which constitute the tongues engaging respectively with the hooks, and an offset between the tongues loosely resting on the seat, substantially as described. 3rd. In a snap hook, the combination with the frame, a curved seat at the lower central portion thereof, oppositely arranged hooks, and a keeper spring engaging the hooks and having a downwardly curved offset at its centre loosely resting in said seat, substantially as described.

No. 51,589. Hook and Eye. (*Agrafe et porte-agrafe.*)

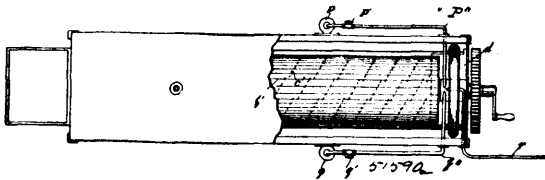


Samuel I. Slade, Detroit, Michigan, U.S.A., 9th March, 1896; 6 years. (Filed 26th December, 1895.)

Claim.—1st. In combination with an eye having its shanks connected by a loop tapering toward the end and inclined from the plane of the shanks, a hook having a shouldered head of a diameter greater than the space between the inclined lower section of the eye, substantially as described. 2nd. An eye having its shanks connected by an inclined loop, said loop tapering from the angle of the incline, and a spring tongue lying between the shanks, substantially as described. 3rd. An eye having its shanks connected by a loop,

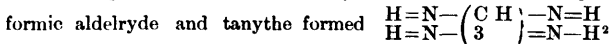
and a spring holding device located in proximity to and above the plane of the end of the loop, substantially as described. 4th. The combination with an eye having its shanks connected by an inclined loop tapering from the point of incline and having a tongue lying between the shanks, and a hook having an enlarged end, substantially as described. 5th. An eye member consisting of shanks connected by a downwardly and forwardly inclined loop, said loop having its sides converging toward the point, substantially as described. 6th. The combination of an eye having its shanks connected by an inclined loop, and a spring holding device located in proximity to and above the plane of the end of the loop, and a hook having a shouldered head of a diameter greater than the space between the inclined sections of the eye, substantially as described.

No. 51,590. Process of Disinfecting Plants, etc.
(*Procédé pour désinfecter les plantes, etc.*)



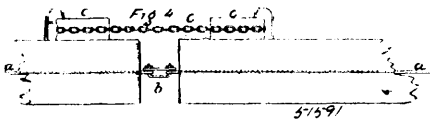
Johannes Theodor Mayener, Luderode, Prussia, Germany, 9th March, 1896; 6 years. (Filed 21st December, 1895.)

Claim.—1st. The art of destroying organism on plants, which consists in treating them with finely divided formation, and then with a material for decomposing said formation into material non-injurious to said growth, substantially as described. 2nd. The art of destroying noxious organism on vegetable growth, which consists in treating same with finely divided formation and chromic acid solution, and then decomposing same with innocuous material, substantially as described. 3rd. The art of destroying noxious organism upon plants, which consists in treating same with finely divided formation and then with finely divided ammonia, substantially as described. 4th. Hermethylw tetramtal a liquid substance easily absorbed in vegetable tissue and formed by the reaction of ammonia upon



and being a secondary heramethalnus. 5th. The apparatus for destroying noxious organism on plants, consisting of an outer cylinder means for conveying the material from one end to the other of said cylinder, an ammonia reservoir, a formation reservoir cock for said reservoir, and pipes leading from east of said reservoir and blast pipe near the end of said reservoir pipes, substantially as described. 6th. The combination of the cylinder b^{11} , the inner cylinder c^1 , the reservoirs P and g , the pipes P^{11} and g , the blast pipe r , the receptacle a , and the receptacle d , all substantially as described. 7th. The art of destroying noxious organisms upon plants which consists in treating the plants with formic aldehyde in solution, and in a fine spray, and then treating them with a solution of ammonia in a fine spray, all substantially as described. 8th. The art of destroying noxious organisms upon vegetable growths, which consists in treating the same with formation and diluted chromic acid and then treating the same with solution of ammonia, substantially as described.

No. 51,591. Boom. (Estacade.)



Denis Gaherty, Montreal, Quebec, Canada, 9th March, 1896; 6 years. (Filed 21st December, 1895.)

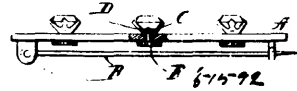
Claim.—1st. A boom comprised of any number of lengths or panels, each of which are formed of 2, 4, 6 or more pieces of timber bolted close together between which are laid longitudinally in grooves, one or more wire cables a , figs. 1, 2, 3, 4 and 5, and all the lengths or panels held together by means of the wire cable or cables a , and wrought iron couplings b , substantially as and for the purpose hereinbefore set forth. 2nd. In a boom comprised of any number of lengths or panels, the combination of the timbers, the wire cable or cables a , the wrought iron couplings b and the ordinary coupling C, C, C , figs. 1, 2, 3, 4 and 5, substantially as and for the purpose hereinbefore set forth.

No. 51,592. Pin. (Épingle.)

Lottie Randolph Bisbee, Jacksonville, Florida, U.S.A., 9th March, 1896; 6 years. (Filed 21st December, 1895.)

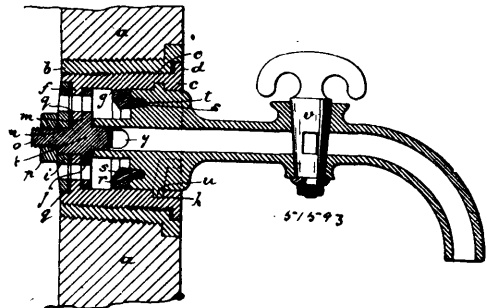
Claim.—1st. An interchangeable setting for precious stones, or similar articles, provided in the base thereof with a screw threaded bore, which is adapted to receive a screw or screw threaded bolt provided with a head, substantially as shown and described. 2nd. The

combination, with a scarf pin or other article of jewelry, provided with a bar or head, of a setting for a diamond or similar article, the



base of which is provided with a screw threaded bore, and a screw provided with a head which is passed through the bar or head and into said screw threaded bore, substantially as shown and described. 3rd. An article of jewelry, which is adapted to be connected with a pin, ring or other device or article provided with a base in which is formed a bore or passage, and a screw or bolt provided with a head which is adapted to be passed through said device or article and into said bore, substantially as shown and described.

No. 51,593. Faucet Bung. (Robinet de bondon.)

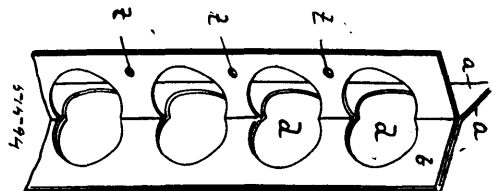


Dillon Beebe, Newark, New Jersey, U.S.A., 9th March, 1896; 6 years. (Filed 7th December, 1895.)

Claim.—1st. In a faucet for casks, the combination of a bung having, near its inner end, a perforated valve seat, and threads g , forward of said seat, a hub having discs extending on opposite sides of the valve seat, and each of said discs having perforations coinciding with those in the valve seat, and lying beyond the radial point of distance of the key end of the faucet from the axial centre of the device, said discs both turning simultaneously with the hub to and from open relation with said seat, and allowing an outflow to the chamber outside of said key end, a faucet seat forward of the outer valve disc, and at a distance therefrom, said chamber being formed between and a faucet, having a key end engaging said hub, a side passage y forward of said key end, and opening from the said chamber into the faucet, a seat or bearing r to engage and form an impervious joint with the faucet, and means for forcing said faucet into impervious relation to the faucet seat, substantially as set forth. 2nd. In a faucet for casks, the combination of a bung having near its rear end, a valve seat and forward of said seat threads g , and bearings h , a hub having a disc valve on the inner side of said valve seat toward said threads, and a head turning said disc valve to and from open relation, and an adjustable faucet seat arranged on said screw threads at a distance from said inner disc valve, a chamber being formed between, and a faucet having a key end, a lateral opening into said chamber, a flange adapted to bear imperviously upon said adjustable faucet seat and a bearing to engage the bearing h , and to force the faucet into impervious contact, substantially as set forth. 3rd. In a faucet for casks, the combination of a bung having a valve seat near its inner end, faucet retaining bearings near its outer end, and at an intermediate point, a faucet seat having a dish end inner surface, and upon its outer surface a projecting annular flange, the faucet seat being so placed as to leave a chamber between it and the valve seat with a disc valve engaging said valve seat provided with a head in said chamber whereby it may be turned, and with a faucet constructed to engage said faucet retaining bearings and having a key end to engage said head, lateral ports communicating with said chamber, and a face forward of said ports in which is an annular recess to engage the flange on the faucet seat, substantially as set forth.

No. 51,594. Corner Plaster-Supporting Strip or Lath.

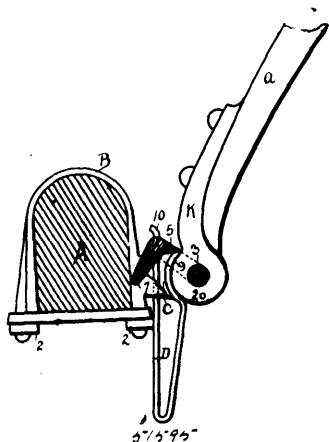
(*Latte, etc., pour supporter le plâtre dans les encoignures.*)



Frank Loring Union and Michael Ambrose Hannon, both of Boston, Massachusetts, U.S.A., 9th March, 1896; 6 years. (Filed 5th March, 1896.)

Claim.—1st. A corner plaster-supporting strip or lath comprising in its construction three longitudinally extended members, two of which are adapted to be connected with the walls of the structure, and the third to extend out on a line coincident with the corner line. 2nd. A corner plaster-supporting strip or lath comprising in its construction three longitudinally extended members, two of which are adapted to be connected with the walls of a structure and the third to extend out on a line coincident with the corner line, the latter member being formed by doubling a strip of material longitudinally upon itself, and the former members by bending the side portions of said strip outward. 3rd. A corner plaster-supporting strip or lath comprising in its construction three longitudinally extended members, two of which are adapted to be connected with the walls of a structure, and the third to extend out on a line coincident with the corner line, the said members being perforated to receive and key the plaster thereon. 4th. A corner plaster-supporting strip or lath comprising in its construction three longitudinally extended members, two of which are adapted to be connected with the walls of a structure, and the third to extend out on a line coincident with the corner line, the latter member being composed of two parts separated, as set forth. 5th. A corner plaster-supporting strip or lath comprising in its construction three longitudinally extended members, two of which are adapted to be connected with the walls of a structure, and the third to extend out on a line coincident with the corner line, combined with a straightedged clamp, to clamp and hold the latter member in line and place while the former are being secured in position.

No. 51,595. Thill Coupling. (*Armon de limonière.*)



William Alfred Lucas, and Lewis Phillip Mooney, both of Fermont, Nebraska, U.S.A., 9th March, 1896; 6 years. (Filed 3rd December, 1895.)

Claim.—1st. The combination with a thill coupling and iron, of an approximately U-shaped key, provided at one end with a latterly extending stub, one of said U-shaped stems passing through said thill iron and coupling, and a spring adapted to work against said thill iron and said stubbed stem, all substantially as and for the purpose set forth. 2nd. The combination with a thill coupling and iron, of an approximately U-shaped key, one end of said key being adapted to work through said thill iron and coupling, the remaining end being slotted and being provided with a latterly extending stub, and a spring, said spring being held within said slotted stem and working against said iron, said key being adapted to be locked while said spring is in position adjoining said coupling, all substantially as and for the purpose set forth. 3rd. The combination with the coupling B, of the thill iron K, provided with a hub 20, of a key comprising the stems 3, 5, 6, and terminating in the stub 7, said stem 6 being provided with a slot 4, said stem 3, being adapted to work through the said coupling B, and said iron K, and a spring D, adapted to be held within the slot 4, and against the hub 20, to lock said key, adjoining said coupling B, all substantially as and for the purpose set forth.

No. 51,596. Process of Extracting Gold from Ore. (*Procédé pour extraire l'or des minerais.*)

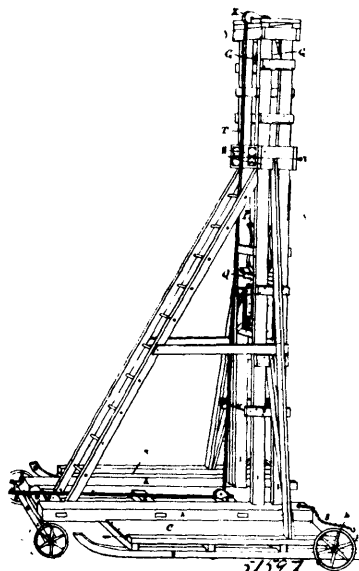
Emil Lawrence Oppermann, Ewald Fischer, and Carl Tunstall John Oppermann, all of 27 Martin's Lane, Cannon st., London, England, 9th March, 1896; 6 years. (Filed 18th November, 1895.)

Claim.—1st. In amalgamation processes the use of vapour of mercury with steam or gases mixed therewith, substantially as

described and for the purpose set forth. 2nd. The employment of the metal under treatment in the manner hereinbefore described and for the purpose set forth.

No. 51,597. Machine for Driving Fence Posts.

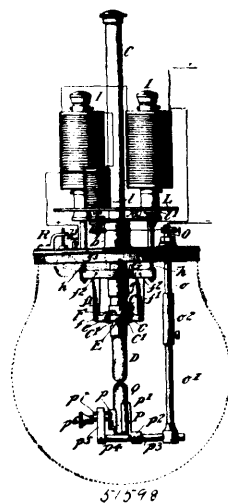
(*Machine pour enfoncer les pieux de clôtures.*)



Archibald McPhee, Parkhill, Ontario, Canada, 9th March, 1896; 6 years. (Filed 18th November, 1895.)

Claim.—In a post driving machine, having a wheeled platform A, supporting the guide posts I, the gravitating weight R, gripper S, trip G, and hoisting rope T, of the wing platforms C, provided with runners D, the draft section H, detachable from the wheeled platform and provided with wheels M, the gripper S, provided with chains P, ring Q, and pull cord O, and the guide posts having a top portion connected to the lower portion by a sub-divided band N, hinged together and provided with a fastening Y, for the purpose set forth.

No. 51,598. Electric Arc Lamp. (*Lampe électrique à arc.*)



Malone Wheless, Washington, Columbia, U.S.A., 9th March, 1896; 6 years. (Filed 12th November, 1895.)

Claim.—1st. The combination of the yoke G, the cap B, and the counter-weight G', the counter-weight being pivoted both to the cap and the yoke, as set forth. 2nd. The combination of the jaws p, p', the latter having the sleeve p², the rod p³, the bar p⁵, the set screw p⁶ and the steady pin p⁷, as set forth. 3rd. The lever

M having the head m^1 , consisting of the several layers m^2 , m^3 , m^4 and m^5 , consisting in order of red fibre, metal, red fibre and metal, and the bolts m^6 , as set forth. 4th. The combination of the solenoids, their hollow centres and the tubes, the cap B, the tubes being secured in holes in such cap, the cores of the solenoids and the rods secured to such cores and passing down through the tube to the under side of the cap, in combination with the cross-head secured to such rods, such cross-head having at its middle a short tube, the positive carbon holder passing through this tube and provided below the tube with slots, the binding cams secured to the positive carbon holder at such slots and also secured to the cross head, as set forth. 5th. The combination of the positive carbon holder provided with slots, the binding cams, the plates for holding such cams to the carbon holder, and the clamp for limiting the upward movement of the plates, as set forth. 6th. The vertically movable controlling rod, a support therefor, and means for limiting the movement of the rod in each direction, in combination with the carbon holder and a pivoted or hinged carbon gripping dog carried by the carbon holder and connected to the controlling rod, substantially as and for the purposes set forth.

No. 51,599. Thermo Electric Generator.

(Générateur thermo-électrique.)

Harry Barringer Cox, Hartford, Connecticut, U.S.A., 9th March, 1896; 6 years. (Filed 2nd November, 1895.)

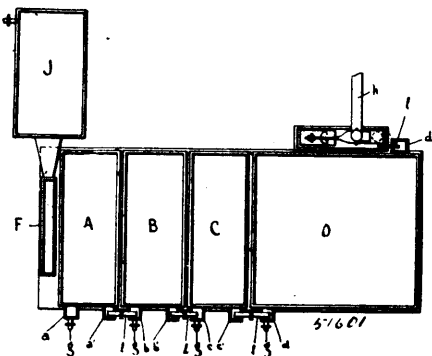
Claim.—1st. The method of making thermo-electric generators, which consists in fusing the engaging surfaces of the different elements by electricity and thereby forming an alloy of the metals of said elements which unites the elements into a single piece without line of junction. 2nd. The method of making thermo-electric generators, which consists in passing a current of electricity through unlike elements so as to fuse the metals thereof at the engaging points into an alloy which unites the element into a single piece by the graduated alloy junction.

No. 51,600. Manufacture of Carbon for Electrical and Other Purposes. (Fabrication de carbone pour objets électriques et autres.)

Charles Percy Shrewsbury, 8 Furnoal's Inn, London, and John Laskey Dobell, Traine, Modbury, Devon, both in England, 10th March, 1896; 6 years. (Filed 11th November, 1895.)

Claim.—In the manufacture of carbon for electrical and other purposes, mixing anthracite coal, bituminous coal and tar or pitch or tar and pitch, all in the proportions hereinbefore stated so as to constitute a material which contracts when exposed to heat, submitting the same to pressure and drying and baking the articles formed therefrom at a high temperature, substantially as hereinbefore described.

No. 51,601. Evaporator. (Appareil évaporatoire)



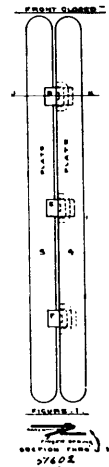
Louis Bourdon, de Notre-Dame, de Bonsecours, Quebec, Canada, 10 mars 1896; 6 années. (Filed 18th November, 1895.)

Claim.—1° Dans un évaporateur, la combinaison d'un fourneau E, avec les bassins A, B, C, D, pourvus de boîtes a, a', b, b', c, c', d, d', et les siphons l, le tout tel que décrit. 2° Dans un évaporateur, la combinaison d'un fourneau E, avec les bassins A, B, C, D, et le régulateur G, le tout tel que décrit. 3° Dans un évaporateur, la combinaison des bassins A, B, C, D, avec un fourneau E, dans l'intérieur duquel se trouve disposée, au-dessus de la grille e, une feuille de tôle M, pourvue d'une trappe N, le tout tel que décrit dans les spécifications et pour les fins indiquées.

No. 51,602. Corset Clasp. (Agrafe de corsets.)

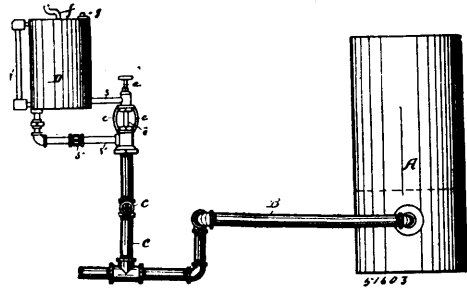
John D. Belcher, Halifax, Nova Scotia, Canada, 10th March, 1896; 6 years. (Filed 13th January, 1896.)

Claim.—1st. The combinations of the springs and slots A, D, B, E, and C, F, as Fig. 2, substantially as and for the purpose herein-



before set forth. 2nd. The combination with the springs and slots as A, D, B, E, and C, F, and D, E, F, (Finger spring), substantially as and for the purpose hereinbefore set forth.

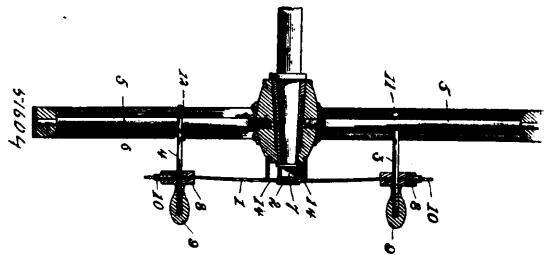
No. 51,603. Boiler Scale Solvent Distributor. (Distributeur de dissolvant pour incrustations dans les chaudières.)



Hezekiah Milton Bolin, Dayton, Ohio, U.S.A., 10th March, 1896; 6 years. (Filed 18th January, 1896.)

Claim.—In a solvent distributor, the combination with a water heater, and a feed pipe, of a stand pipe C, located in proximity to a pump or engine, a solvent reservoir, a sight tube, and a regulating valve e, mounted on the upper end of said stand pipe, a solvent feed pipe connected to the reservoir and communicating with the stand pipe C, through the valve e, and an auxiliary solvent feed pipe connected to said reservoir and communicating with the pipe C, below the valve e, whereby means are provided for feeding solvents of different specific gravities, as herein shown and described.

No. 51,604. Vehicle Axle Nut Wrench. (Clé à écrou.)



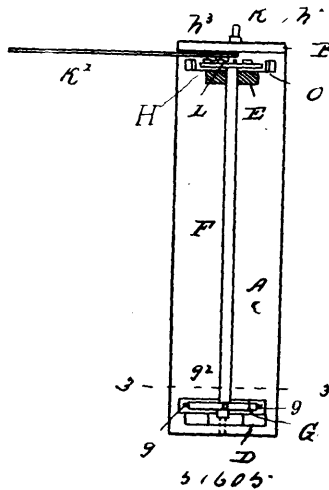
Joel Burke, New York, State of New York, U.S.A., 10th March, 1896; 6 years. (Filed 22nd January, 1896.)

Claim.—1st. A wrench comprising a bar provided at its ends with perforations, a nut-receiving socket mounted on the bar intermediate of the ends thereof, rods passing through the perforations of the bar and provided at their inner ends with spoke-engaging devices, clips mounted on the extremities of said bar and also embracing said rods, and set screws passing through said clips for holding said rods fixed, substantially as described. 2nd. A wrench comprising a bar, rods adjustably connected to the bar and extending inward therefrom, one of the rods being provided with a hook, a substantially semi-

circular catch pivotally secured to the other rod adjacent to the inner end thereof and adapted to receive and confine the spoke between it and the rod, and a nut receiving socket mounted on the bar, substantially as described.

No. 51,605. Music Leaf Turner.

(*Tourne-feuille de musique.*)



Lattimore Carter and Edmund Kemble, both of Hoboken, New Jersey, U.S.A., 10th March, 1896; 6 years. (Filed 24th January, 1896.)

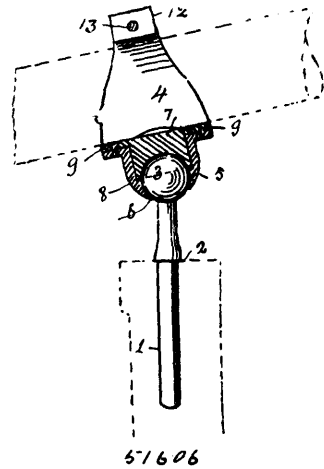
Claim.—1st. The herein described music turner comprising a plate or board or other support, bearings at each end thereof, a shaft mounted in said bearings, a wheel at its upper end provided on its upper surface with radial shoulders or projections which are arranged eccentrically to the centre thereof, a cross-head connected with the upper end of said plate or board through which is passed a pin or bolt, on the lower end of which is mounted a plurality of rods or arms, each of said rods or arms being provided with a depending shoulder or projection in connection with which the radial shoulders or projections of the wheel are adapted to operate, and means for operating said shaft, substantially as shown and described. 2nd. A music turner comprising a plate or board which is adapted to be connected with a music holder, a shaft mounted in bearings secured to one side thereof, a wheel connected with the upper end of said shaft, a cross-head supported above said wheel, a pin or bolt passing through said cross-head, and out of line with said shaft, and a plurality of arms or rods pivotally connected with the lower end of said pin or bolt, and adapted to be held in the same plane, each of said rods or arms being provided with a depending shoulder or projection adjacent to the inner end thereof, and said shoulders or projections on the different rods or arms being arranged at different distances from the said inner ends thereof, and each of said shoulders or projections being adapted to operate in connection with a corresponding radial shoulder or projection formed on the upper surface of the wheel, substantially as shown and described. 3rd. A music turner comprising a plate or bowl which is adapted to be connected with a music holder, a shaft mounted in bearings secured to one side thereof, a wheel connected with the upper end of said shaft, a cross-head supported above said wheel, a pin or bolt passing through said cross-head, and out of line with said shaft, and a plurality of arms or rods pivotally connected with the lower end of said pin or bolt, and adapted to be held in the same plane, each of said rods or arms being provided with a depending shoulder or projection adjacent to the inner end thereof, and said shoulders or projections on the different rods or arms being arranged at different distances from the said inner ends thereof, and each of said shoulders or projections being adapted to operate in connection with a corresponding radial shoulder or projection formed on the upper surface of the wheel, and means for operating said shaft and revolving said wheel, comprising a wheel mounted thereon at the lower end thereof, substantially as shown and described.

No. 51,606. Oarlock. (*Toletière.*)

Willis E. De Riar, Stryker, Ohio, U.S.A., 10th March, 1896; 6 years. (Filed 24th January, 1896.)

Claim.—1st. An oarlock, consisting of a shank adapted to be inserted into a boat gunwale and formed at its upper end into a ball, the tholes formed at their lower meeting point into a half-socket adapted to receive the ball therein, and a retaining plate removably secured in the upper part of said half-socket and adapted to form the upper half of the ball socket, substantially as described. 2nd. An oarlock, consisting of two resilient tholes movably connected to the boat gunwale and formed at their upper ends into apertured

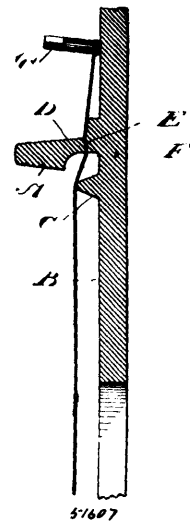
lugs, in combination with a thumb-screw adapted to pass through the apertures in said lugs to bring the parts together, substantially



as described. 3rd. In an oarlock, the combination of two resilient tholes formed at their upper free ends into apertured lugs and at their lower ends with a half-socket, a thumb-screw for drawing together the upper ends of said tholes, a shank adapted to be inserted into the boat gunwale and formed at its upper end into a ball adapted to be inserted into the half-socket, and a retaining plate removably attached to the half-socket and adapted to form the upper half of said socket, substantially as described.

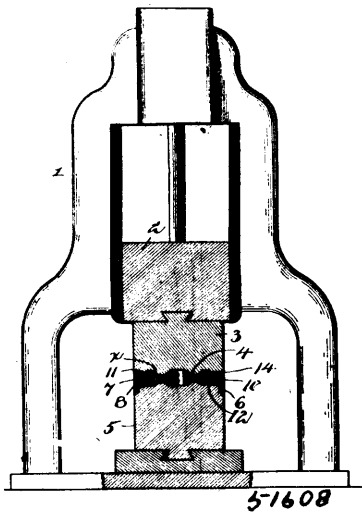
No. 51,607. Agraffe for Upright Planos.

(*Agrafe pour pianos.*)



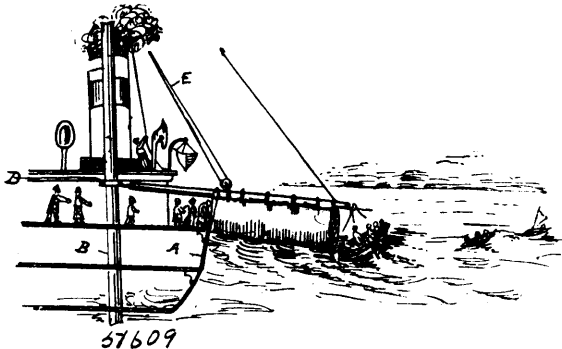
George Charles Heintzman, Toronto, Ontario, Canada, 10th March, 1896; 6 years. (Filed 25th January, 1896.)

Claim.—1st. In an upright piano, an agraffe bridge cast in one piece with the iron frame immediately contiguous to the bar forming the ringing point for the strings, holes being drilled through the agraffe bridge behind the plane of the ringing point, through which holes the strings pass to the tuning pins, substantially as and for the purpose specified. 2nd. In an upright piano, the agraffe bridge A, cast in one piece with the frame B, close to the bar C, the said bar having a narrowed base D through which are drilled the holes E, for the strings, substantially as and for the purpose specified. 3rd. In an upright piano, the combination of the iron frame B, the bar C forming the ringing point for the strings, the agraffe bridge A, cast in one piece with the said frame, and having a narrowed base D, through which are drilled the holes E behind the plane of the ringing point, the strings F suitably held at the lower end, and the tuning pins G, substantially as and for the purpose specified.

No. 51,608. Machine for Forging Car-Wheels.*(Machine pour forger les roues de chars.)*

James A. Facer, Germantown, Pennsylvania, U.S.A., 10th March, 1896; 6 years. (Filed 27th January, 1896.)

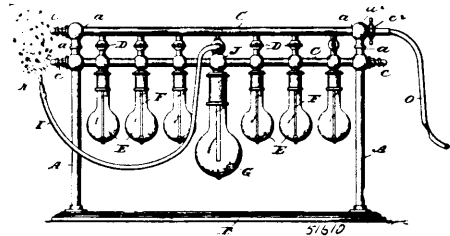
Claim.—In a machine for forging car-wheels, the finishing die having at the top an open die recess provided with a renewable outer wall, said outer wall of the die recess having an inner bevelled side, and an inner sectional annular wall registering in the die recess within the outer wall thereof and consisting of duplicate semi-circular sections provided at their inner upper edges with continuations of an annular flange-forming groove, and with bevelled outer sides having a slidable registering fit against the inner bevelled sides of said outer wall of the die recess, substantially as set forth.

No. 51,609. Life Saving Apparatus.*(Appareil de sauvetage.)*

Jacob Greener, Elmira, New York, U.S.A., 10th March, 1896; 6 years. (Filed 27th January 1896.)

Claim.—1st. A boom or derrick mounted for pivotal and vertical movement and provided with a sack and means at its outer end for suspending a life-boat, substantially as described. 2nd. A boom or derrick mounted for pivotal and vertical movement and provided with hoisting means combined with a sack mounted upon said boom and designed to convey persons from a vessel carrying said boom to a life-boat suspended from the outer end thereof, substantially as described. 3rd. The combination of a boom mounted for pivotal and vertical movement, of a flexible sack open at the ends and mounted upon said boom and means at the outer end of said boom for supporting a life-boat, substantially as described. 4th. The combination with a vessel of a boom pivotally mounted on said vessel and flexible sack thereon for conveying persons therefrom to a life-boat, and means for suspending a life-boat therefrom and launching it at a distance from the vessel, substantially as described. 5th. The combination with a vessel, of a boom pivotally and vertically movably mounted thereon, a life-boat supported from the outer end of said boom and a flexible sack mounted on the boom between the life-boat and the inner end thereof and adapted to form a conductor from the vessel of the life-boat, substantially as described. 6th. The combination with a vessel having an opening in its side rail, of a boom pivotally and vertically movably mounted on the

mast, a sack suspended from the boom, means at the outer end of the boom for supporting a life-boat, and means for swinging the boom to bring the inner end of the sack constant with said opening, substantially as described.

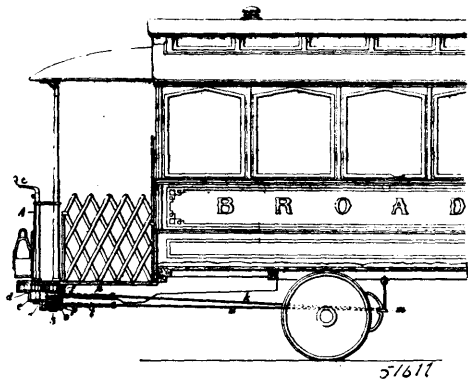
No. 51,610. Process of and Apparatus for Atomizing, Mixing and Administering Liquid Medicines. *(Procédé et appareil pour mélanger, administrer etc., les médecines.)*

John Robertson, Cincinnati, Ohio, U.S.A., 10th March, 1896; 6 years. (Filed 27th January, 1896.)

Claim.—1st. An atomizer having a compressed air inlet-pipe communicating with one or more atomizing tubes, each taking into separate atomizing flasks communicating with a mixing flask, having an exit tube communicating with a discharge tube, substantially as described. 2nd. An atomizer having an inlet-pipe communicating by one or more interposed stop-cocks with suspended atomizing tubes taking into suspended atomizing flasks communicating with a suspended mixing flask having an exit tube communicating with a discharge tube, substantially as described. 3rd. An atomizer having an inlet-pipe C¹ communicating with one or more suspended atomizing tubes having atomizing holes of smaller area than any of the subsequent openings in the flasks E, pipe C, mixing flask, exit and discharge tubes into which the atomized product is projected to permit the expansion of air therein, substantially as described. 4th. An atomizer having two or more atomizing receptacles provided with atomizing tubes, in combination with a mixing receptacle, substantially as described. 5th. In an atomizer one or more atomizing flasks each having an atomizing tube therein supplied with compressed air or other gas desired, each atomizing flask communicating with a mixing flask having a suspended removable 6th. The combination in an atomizer, of an atomizing flask with an atomizing tube having its lower end immersed in liquid, said tube being provided with a hole leading from the vertical opening in the tube to and forming an acute angle with a canal, (with which said tube is provided) leading from the liquid, substantially as described. 7th. In an atomizer, an atomizing tube having the lower end of the vertical opening closed, said tube being provided with a hole from the central vertical opening to a groove on the outside at an angle of less than ninety degrees therewith and an adjustable sleeve taking over the tube thereby transforming the groove and providing the tube with a canal leading from the liquid in the atomizing flask to said hole, substantially as described. 8th. An atomizing tube F, having groove f, hole f¹ opening therefrom outwardly, sleeve f², canal f³ arranged and operating, substantially as described. 9th. In an atomizer, an atomizing tube closed at its lower end said tube having a groove on the outside thereof, an adjustable sleeve having its upper end cut at a blunt angle taking over the lower end of said tube thereby forming a canal from the liquid to a hole extending from the central vertical opening at an acute angle to said canal, substantially as described. 10th. In an atomizer, a compressed air inlet-pipe communicating with stop-cock having attached thereto an atomizing flask and a suspended tube closed at its lower end, said tube having a hole extending therefrom at an upward angle to a groove on the outside of the tube and a sleeve taking about the lower end of the tube covering the groove and forming a canal communicating with the liquid to be atomized, substantially as described. 11th. In an atomizer the tube O, coupling c², pipes C and C¹, stop-cocks D, atomizing tubes F, atomizing flasks E, mixing flask G, tube H, fitting J, stop-cock K, nipple L, projecting or discharge tube I and mouthpiece N, all combined and adapted to operate, substantially as described. 12th. In an atomizer, the combination of the base B, standards AA, uprights aa, pipes C and C¹, having plugs c, c¹, and coupling c², stop-cocks D, flasks E and G, tubes F, H and I, and stop-cock K, substantially as described. 13th. The herein described process of treating medicines, consisting, first, in reducing different liquid medicines by mechanical means and without chemical reaction to infinitesimal particles in separate receptacles, second, commingling such particles in a mixing flask, third, depositing the coarser particles therein, and fourth, conveying the refined and commingled particles to the patient, for the purpose specified. 14th. The herein described process of atomizing, mixing and administering medicines, consisting, first, in reducing different medicines, to infinitesimal particles simultaneously in separate flasks, second, in commingling the atomized products in a mixing flask, and third, applying such commingled product under pressure to the patient, for the purposes specified. 15th. The herein described process of atomizing, mixing and administering medicines, consisting,

first, in reducing different liquid medicines to infinitesimal particles in separate receptacles, second, in conveying the products simultaneously to a mixing receptacle where the coarser particles are eliminated by deposition while the refined and commingled particles are held in suspension and projected through tubing under pressure to the patient, for the purpose set forth.

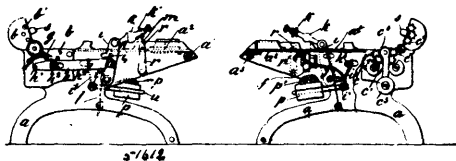
No. 51,611. Car Brake. (Frein de chars.)



Thomas Millen, New York, State of New York, U.S.A., 10th March, 1896; 6 years. (Filed 27th January, 1896.)

Claim.—The standard *a*, carrying the handle *c*, and provided on its lower end with the gear wheel *d*, which engages with and operates the large gear wheel *f*, and sprocket wheel *g*, in combination with auxiliary sprocket wheel *p*, and suitable brake chains and rods, substantially as described and specified.

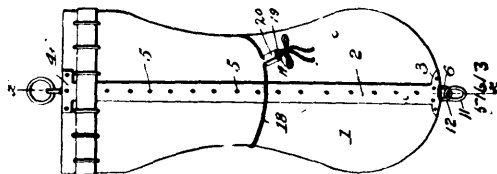
No. 51,612. Cigarette Machine. (Machine à cigarettes.)



Henri Félix Marie Lemaire, Paris, France, 10 mars 1896; 6 ans. (Déposé 20 janvier 1896.)

Claim.—1° La combinaison avec un moule à rouleaux *b*¹, divisés en deux parties, fixe et mobile, d'une courroie de mouillage *f*, telle que décrite ci-dessus. 2° La combinaison avec un moule à rouleaux *b*¹, divisés en deux séries fixe et mobile, d'un mécanisme actionné par le couvercle du moule et destinés à amener le porte gomme *K*, et la gomme *K*¹, en contact avec une courroie de mouillage *f*, telle que décrite ci-dessus et pour les fins indiquées.

No. 51,613. Nail Pouch. (Boîte à clous)

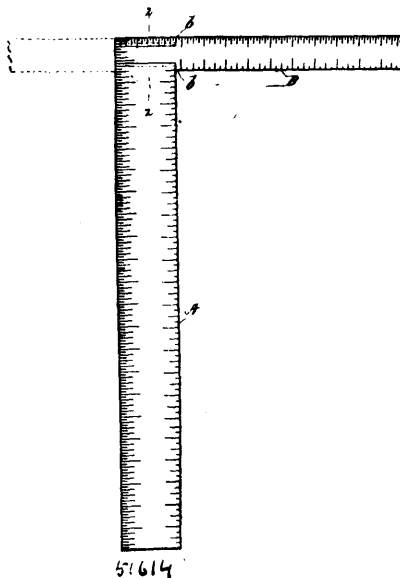


Augustus P. Hauss, New Albany, Indiana, U.S.A., 10th March 1896; 6 years. (Filed 30th January, 1896.)

Claim.—1st. A nail pouch having inner and outer plates secured to its bottom, said plates having coincident holes or openings designed to register with similar holes or openings in the bottom of said pouch, a bolt hook passed through said holes or openings, a ring removably held by said bolt hook, means for removably securing said bolt hook in place, and inner and outer reinforcing straps extending from the bottom of said pouch on each side of the mouth thereof substantially as set forth. 2nd. A nail pouch having inner and outer plates secured to its bottom, said plates having coincident holes or openings designed to register with similar holes or openings in the bottom of said pouch, a bolt hook passed through said holes or openings and having one of its members screw-threaded, a ring removably held by said bolt hook, a threaded wing-nut working on said threaded member, and reinforcing straps extending from the bottom of said pouch on each side to the mouth thereof, substantially as set forth. 3rd. The combination with a nail pouch, of the outer and inner metal plates attached to the bottom thereof and having the registering openings forming a seat opening and a socket opening contiguous to the seat, a bolt-hook adapted to have longitudinal

movement in the said seat to disengage its hooked end from the socket opening, means to retain the bolt in place, and the hook thereof in the socket opening, and a ring removably held in the hooked end of the bolt, substantially as described. 4th. An improved nail pouch, comprising a pouch having a suitable fastening at its mouth, the wide outer and inner opposite straps secured thereto and extending from the mouth of the pouch along one side to its bottom, across the bottom, and along the other side to its mouth, the metal plates secured on the outside and inside of the bottom and formed with the registering openings, the bolt-hook movably secured in said openings and a ring removably held in the hooked end of the bolt, the eye strap secured at the mouth end of the pouch and a ring removably held in its eye, substantially as set forth.

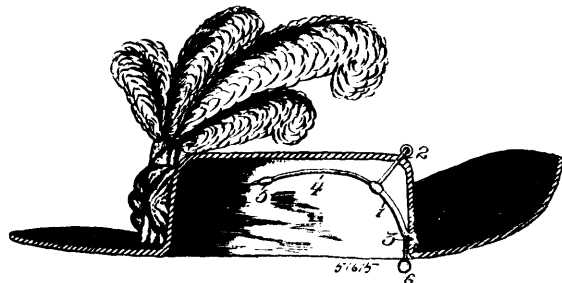
No. 51,614. Square. (Equerre.)



Charles Herndon Biggs, Brooklyn, New York, U.S.A., 10th March, 1896; 6 years. (Filed 29th January, 1896.)

Claim.—1st. A square, the separate arms of which are provided on their opposite sides with corresponding scales, one of said arms being separable from the other, and reversible thereon, by means of a tongue being also provided with shoulders which are adapted to abut against the sides of the other part, the arrangement of tye scales being such that the corresponding sides of the separate arms are provided with the same scale in either position of the parts, substantially as shown and described. 2nd. A square, one of the arms of which is separable from the other and reversible thereon, by means of a tongue and groove coupling, that part which is provided with the tongue being also provided with shoulders which are adapted to abut against the other part, substantially as shown and described.

No. 51,615. Hat Securer. (Attache de chapeau.)

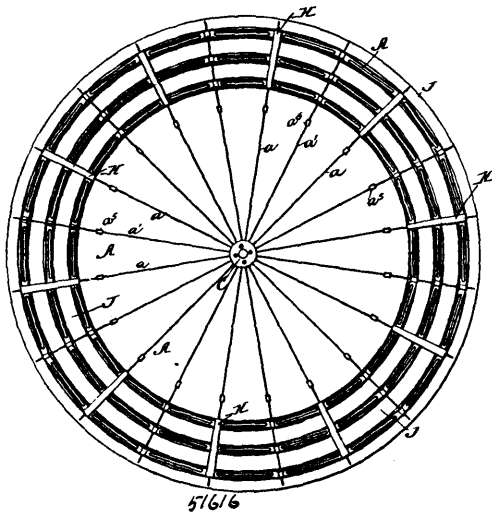


Oscar J. Jones, Winfield, Kansas, U.S.A., 11th March, 1896; 6 years. (Filed 31st January, 1896.)

Claim.—1st. The combination, with the curved guide bar pointed at its outer end to enter a hat and provided at or near its inner end with means for attaching it to the crown of a hat, said bar having means for guiding and carrying a hat pin, of a curved hat pin reciprocating in said guide bar, said pin being provided with a stop cooperating with the guide bar to limit its reciprocatory movement, substantially as set forth. 2nd. The combination with a curved guide bar, sharpened at one end to enter a hat and provided adja-

cent to its opposite ends with guide-loops, of suitable prongs for attaching said bar to the crown of a hat, and a curved hat pin arranged to reciprocate in the aforesaid loops and provided with a stop intermediate the guide loops whereby the longitudinal movements of the hat pin are limited, substantially as set forth. 3rd. The combination with a curved guide bar sharpened at its outer end and provided with laterally projecting guide loops on one side, two near its inner end and one near its outer end, of suitable upwardly projecting prongs arranged to co-operate with said sharpened end for fastening said bar inside the crown of a hat, and a curved hat pin sharpened at its inner end and provided with a thumb rest at its outer end, and also provided with a stop adapted to limit the longitudinal movement of said pin, said pin being arranged to reciprocate in the aforesaid loops, as and for the purpose described.

No. 51,616. Circle Cycles. (Ciclettes pour carrouzels.)

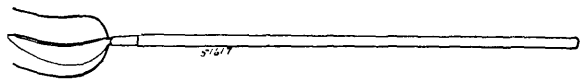


Edward Independence Brannan, Richmond, Virginia, U.S.A., 11th March, 1896; 6 years. (Filed 3rd February, 1896.)

Claim.—1st. In combination, in an apparatus as described, the turn post, the circular track-way, the radiating supporting sections, including the frames D, the supporting wheels, having a yielding bearing on such frames, whereby they are normally held from contact with the track-ways, as and for the purpose described. 2nd. In combination, in an apparatus as described, the circular track-way, having a yielding bearing face, the turn post, the radial supporting frames connected thereto, and the wheels mounted in such frames for engagement with such track-way, all substantially as and for the purpose described. 3rd. In an apparatus as described, the combination with the circular track-way and the central turn post, of the radiating rods, arranged in sections, each consisting of a central horizontal member a^1 , and outer downwardly inclined members a, a' , the frames D centrally supported on the rod a^1 , its ends bent downward and supported on the rods a, a' , the wheels E, E^1 , journaled in such frames, and the platform H, supported on the downwardly bent ends of the frames D, all substantially as and for the purpose described. 4th. In an apparatus, substantially as described, the combination with the circular track-way and the central turn post, of the radial rods a, a^1, a'' , the wheels carrying frames D, formed of a central portion adjustably supported on the rod a^1 , said frames consisting of parallel members bent down at their ends, clip blocks held in such ends, the blocks G, adjustably held on the ends of the rods a, a' , and means for connecting the clip blocks, and the blocks G, all substantially as shown and described. 5th. In an apparatus as described, in combination a circular track-way having a yielding bearing face, the turn post, the radial supports or frames projected therefrom, the supporting wheels having non-yielding bearing faces, mounted in the supporting frames normally held from contact with the yielding faces of the track-way, substantially as and for the purpose described. 6th. In an apparatus, substantially as described, the combination of the turn post, the circular track-way, and the radial arms projected from the turn-post and the wheel supporting frames mounted on the said radial arms, each formed of a plurality of concentrically arranged sections, each having yielding bearings, and the supporting wheels arranged in a series in radial alignment and independently journaled in such frame sections, whereby as one wheel of each series is depressed by the weight of the rider, the remaining wheels in such section will be held from light frictional contact with the track-way, all and for the purposes described.

No. 51,617. Pitchfork Band Cutter.

(Fourche coupe-hart.)

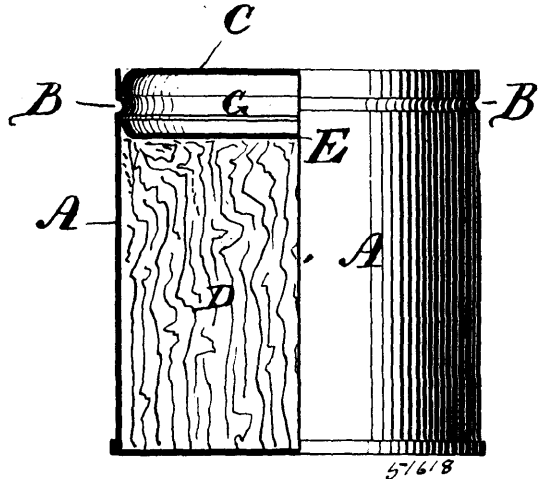


Jackson Johnson, Norham, Northumberland, Ontario, Canada, 11th March, 1896; 6 years. (Filed 4th February, 1896.)

Claim.—1st. The combination of knife A, with prongs B, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the knife A, with prongs B and handle C, and ferrule D, substantially as and for the purposes hereinbefore set forth.

No. 51,618. Packing Lobsters in Cans.

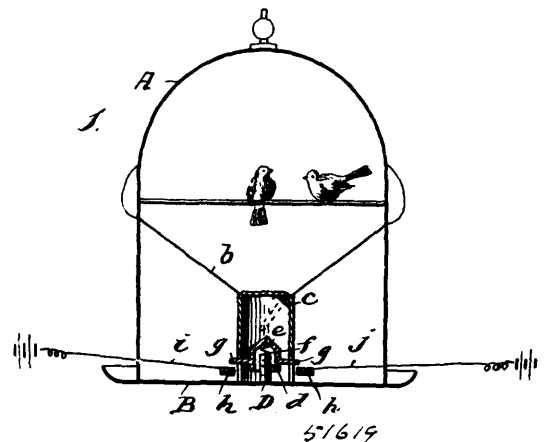
(Procédé pour mettre le homard en boîte.)



Frank Roberts, Halifax, Nova Scotia, Canada, 11th March, 1896; 6 years. (Filed 5th February, 1896.)

Claim.—1st. A can of packed lobsters or other fish, having a head E inserted in the can and held frictionally against the wall and below the cover C, whereby a chamber or space G is formed between said cover and head, for the reception of water of condensation from steam expelled from the contents when boiling the can prior to hermetically sealing the can, as set forth. 2nd. The process of packing lobster meat or other fish food in cans, which consists in placing within the can after receiving the quantity of meat, a head E frictionally held against the wall, and pressed down to follow the depression of the contents of the can and forming with the cover C when soldered on, a chamber or space G, as and for the purpose set forth.

No. 51,619. Alarm. (Avertisseur.)

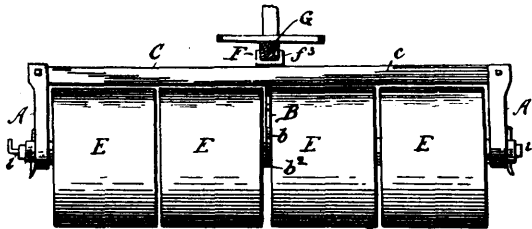


Robert William Jacob Karus, New York, State of New York, U.S.A., 11th March, 1896; 6 years. (Filed 6th February, 1896.)

Claim.—1st. The method of producing an alarm by the falling of a living unconscious body upon electrodes by which an electrical connection is made and a current or circuit is established. 2nd. The method of producing an alarm by the physical unconsciousness of a living falling body upon an electrical circuit maker or electrode

by which the conductors are electrically connected to an alarm, substantially as described. 3rd. A system of conveying electric alarms consisting of the electric conductors, the electrode and the falling of an unconscious body whereby the current is established by the closing of the electrodes by said falling body, substantially as described. 4th. The system herein described of sounding electrical alarms, consisting of providing a cage having an inclined bottom with a trap door, the electrode or electric connections, and a falling body to operate the several, as set forth. 5th. A fire alarm consisting of a cage provided with a trap door, the cylinder or sleeve, the central part, the electrical connections and a battery or line wire, as described adapted to be operated by a falling body.

No. 51,620. Land Roller. (Rouleau d'agriculture.)

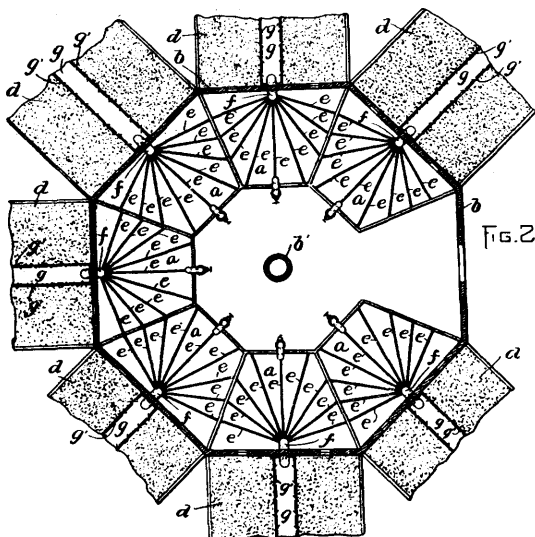


51620

Charles J. Shaw, Owosso, Michigan, U.S.A., 11th March, 1896; 6 years. (Filed 6th February, 1896.)

Claim.—1st. In a land roller, the combination, with a plurality of standards having bearings, of a hollow shaft revolvably mounted in said bearings and provided with outlet holes opposite said bearings, a rod, movable within the shaft, a series of washers on the rod and adapted to close the outlet holes means for closing the ends of said shaft, and a roller mounted on the shaft, substantially as described. 2nd. In a land roller, the combination, with two end standards having bearings and a central standard or stay-brace having a downward and forward projecting draft-piece, of a hollow shaft revolvably mounted in said bearings and provided with outlet holes, a rod movable within the shaft and projecting through the bearing at one end, a series of washers fixed on the rod whereby the outlet holes may be closed or opened by moving said rod, and a plurality of rollers mounted on the shaft, as described. 3rd. In a land roller, the combination, with a pair of standards having bearings, a frame connecting the standards and a central stay brace secured to the frame, said brace having a downward and forward projecting draft-piece and a tongue holder adapted to be supported by the central brace, of a hollow shaft revolvably mounted in said bearings and provided with outlet holes, a rod movable within the shaft and projecting through the bearing at one end, a series of washers fixed on the rod whereby the outlet holes may be closed or opened and a series of rollers mounted on the shaft, substantially as described.

No. 51,621. Sewage Apparatus. (Appareil d'égout.)



51621

Amasa Stetson Glover, Brockton, Massachusetts, U.S.A., 11th March, 1896; 6 years. (Filed 6th February, 1896.)

Claim.—A sewage apparatus comprising a series of stationary primary filter beds, a structure over said beds with provision for the

removal of offensive gases therefrom, and a series of stationary secondary filter-beds located outside the said structure and arranged to receive by gravitation the effluent from the primary filter-beds, the said primary beds being constructed to discharge the effluent wholly through filtering material, whereby the offensive matter is retained in the structure and the effluent is clarified and partially purified and whereby the said effluent may receive subsequent treatment in the open air by extensive secondary beds for any required length of time without offense.

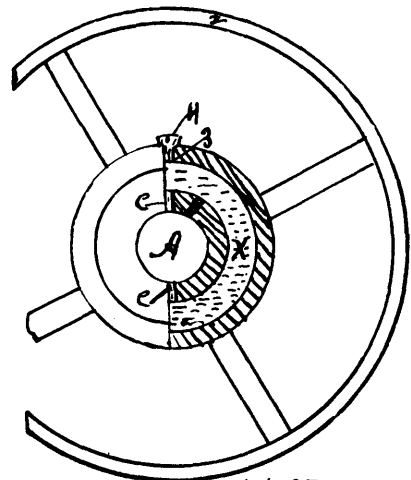
No. 51,622. Process of Extracting Gold from Sand or Ore. (Procédé pour extraire l'or du sable ou minéral.)

Frederick A. Luckenback, New York, State of New York, U.S.A., 11th March, 1896; 6 years. (Filed 6th February, 1896.)

Claim.—The herein described process, consisting of the pulverization of auriferous sands or ores in currents of superheated steam, the conveyance of the pulverized mass by jets of superheated steam into contact with sprays of cold water, the conversion by means of these sprays of the mass from a dry hot to a wet hot condition and the amalgamation of the gold contained in the converted mass with quicksilver while under heat, pressure and motion.

No. 51,623. Oiler for Loose Pulleys. (Graisseur pour poulie folle.)

(Graisseur pour poulie folle.)

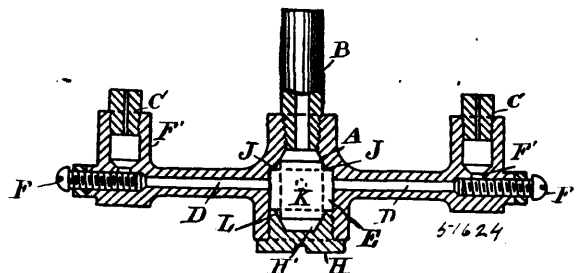


51623

John Braithwaite, and George H. Broder, both of Winchester, Ontario, Canada, 11th March, 1896; 6 years. (Filed 5th February, 1896.)

Claim.—The combination with the pulley having an annular oil chamber near the outer end of hub of said pulley, the radial ducts to conduct the oil to the shaft, the screw cap engaging the said outer end of hub of pulley forming a packing box, and the packing material in said packing box, substantially as described.

No. 51,624. Gas Burner. (Brûleur pour gaz.)



51624

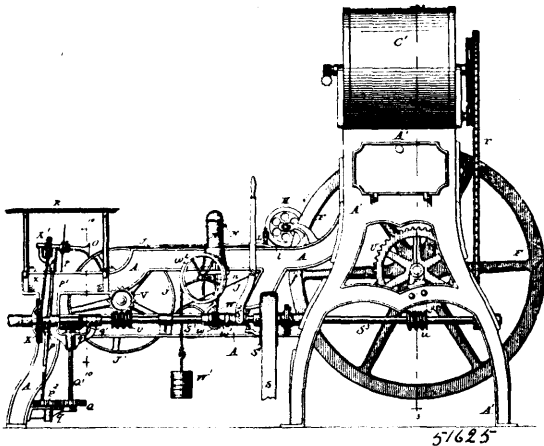
The Consolidated Car Heating Company, assignee of James F. McElroy, both of Albany, New York, U.S.A., 11th March, 1896; 6 years. (Filed 30th January, 1896.)

Claim.—1st. In a gas lamp, the combination of an inlet passage terminating in a chamber, a multiplicity of passage-ways leading from said chamber to a multiplicity of burners, a gauze straining cylinder substantially concentrically interposed in said chamber and surrounding the induction orifice, forming an enlarged chamber out

side of said gauze straining cylinder and between it and each of said passage-ways, a removable plug forming the bottom of said chamber and supporting said gauze cylinder, substantially as described and for the purpose set forth. 2nd. In a gas lamp, the combination of an induction passage, a multiplicity of outflow passages leading to burners, a common chamber to all of the passages having its upper surface conical in shape, a removable plug from the bottom of said chamber and having a conical recess in its upper portion, a compressible straining cylinder adapted to be interposed between the upper surface of said chamber and the conical recess in the upper portion of the plug forming the bottom of said chamber, substantially as described. 3rd. In a gas lamp having a multiplicity of burners, a series of passage-ways leading thereto, a chamber common to said passage-ways and adapted to receive gas from a source of supply, a gauze cylinder in said chamber surrounding the induction passage and forming a diaphragm in said chamber dividing said chamber into two portions the outer of which is concentric with said gauze diaphragm and is common to all of the passage-ways leading to the burners and independent means for adjusting the flow to the burners.

No. 51,625. Cigarette Machine.

(Machine à cigarettes.)



The Winston Cigarette Machine Company, assignee of William Cyrus Briggs, both of Winston, North Carolina, U.S.A., 11th March, 1896; 6 years. (Filed 21st January, 1896.)

Claim.—1st. A filler-forming device for cigarette machines, comprising two concentric flanged wheels rotating in the same direction but at a slight angle to each other, so as to compress laterally tobacco deposited between the flanges, in combination with wrapper applying devices and a conductor extending from the periphery of the wheels beneath the compressed tobacco to the wrapper-applying devices to arrest the movement of the filler with the wheels and convey it to the wrapper-applying devices, substantially as hereinbefore set forth. 2nd. A filler-forming device for cigarette machines, comprising two concentric flanged wheels working at a slight angle to each other, and provided with detachable interlocking devices for driving one from the other at the same speed and in the same direction, substantially as hereinbefore set forth. 3rd. A filler-forming device for cigarette machines, comprising a flanged carrying wheel rotating in a fixed position, and a second flanged ring or wheel concentric with the other, and rotating on a shaft adjustable relatively to that of the fixed wheel, and slightly inclined relatively thereto, substantially as hereinbefore set forth. 4th. A filler-forming device for cigarette machines, comprising a flanged carrying wheel rotating in a fixed position, a second flanged ring or wheel concentric with the other, and rotating on a shaft adjustable relatively to that of the fixed wheel, and slightly inclined relatively thereto, and detachable interlocking devices to drive one wheel from the other, substantially as hereinbefore set forth. 5th. A filler-forming device for cigarette machines, comprising a carrying wheel provided with a flange and an annular groove in its periphery, a second flanged wheel or ring concentric with the first and having its axis slightly inclined relatively thereto and a compressing wheel grooved correspondingly with the grooved carrying wheel and working between the flanges of both wheels with its groove registering with the groove of the carrying wheel. 6th. A filler-forming device for cigarette machines, comprising a flanged wheel having an annular groove in its periphery adjacent to the flange, a second flanged wheel concentric with the first and rotating on an axis slightly inclined relatively thereto, mechanism for discharging tobacco in regulated quantities between the flanges, a grooved compressing wheel to compress vertically into cylindrical rod-like form the tobacco carried and laterally compressed by the flanged wheels, a conductor beneath the compressed tobacco and below the compressing wheel, extending from the flanged wheels beneath the compressing wheel to the wrapper-guide, a wrapper-guide, and a carrying-belt entering said guide below the

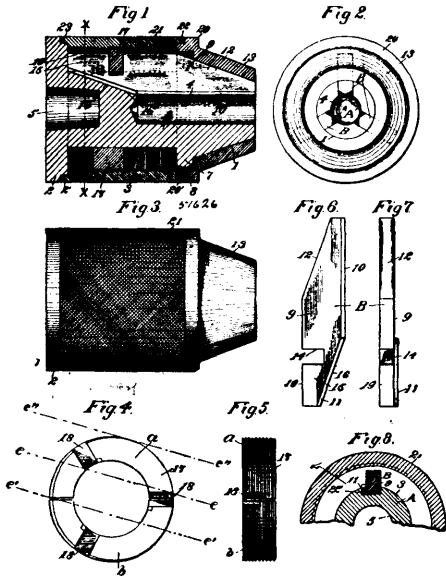
conductor, substantially as hereinbefore set forth. 7th. A filler-forming device for cigarette machines, comprising a flanged, annular grooved carrying wheel, a second flanged wheel concentric with the first and rotating on an axis slightly inclined relatively thereto, mechanism for discharging tobacco in regulated quantities between the flanges, a grooved compressing wheel to compress vertically into cylindrical rod-like form, the tobacco carried and laterally compressed by the flanged wheels, a conductor beneath the compressed tobacco and below the compressing wheel, extending to the wrapper-guide, a wrapper-guide, a carrying-belt entering said guide below the conductor, a scraper for the compressing-wheel, and yielding guides to keep the paper wrapper strip in position, substantially as hereinbefore set forth. 8th. The combination of two concentric flanged wheels rotating in the same direction, but at a slight angle to each other so as to compress laterally tobacco deposited between the flanges, feed rolls mounted above the flanged wheels and rotating in a direction at right angles to the rotation of the said wheels, wrapper applying devices arranged above the plane of the axes of the flanged wheels and a conductor for conveying the filler from the flanged wheels to the wrapper applying devices. 9th. The combination of two concentric flanged wheels, two separate shafts to which the wheels are independently connected and one of which is arranged at an angle to the other, means for driving the wheels in the same direction, means for feeding tobacco thereto and wrapper applying devices to which the filler formed by the wheels is delivered. 10th. A tension device for the paper roll of a cigarette machine, comprising a stud-shaft fixed on the main frame, a sleeve thereon, a plate-spring fastened to the sleeve at one end and bearing on the periphery of the paper roll at the other, another sleeve on the stud-shaft, a spring connected with said sleeve, and bearing on the plate-spring, and a locking device connecting the shaft and sleeve to vary the tension of the spring and thereby vary the tension on the paper roll. 11th. A wrapper guide and tension device for a cigarette machine, comprising a plate which the wrapper-strip traverses lengthwise and which is adjustably secured at one end to the main frame and bears on the periphery of the paper roll at the other end, and a spring for moving the plate towards the paper roll. 12th. The combination of the paper roll, the guide and tension plate which bears on the periphery of the paper roll, guide pins secured to the plate on opposite sides of the paper roll and an adjustable connection between the plate and the main frame of the machine. 13th. An automatic cigarette severing device comprising a delivery tube, a centrally pivoted arm on which it is mounted, a cutter, a centrally pivoted rocking arm on which it is mounted, inter-meshing gears to one of which each arm is eccentrically pivoted to impart a longitudinal movement to both the delivery tube and cutter as well as a lateral vibration relatively to the normal line of travel of the continuous cigarette, and means for driving the inter-meshing gears, substantially as set forth. 14th. An automatic cigarette severing device, comprising a delivery tube, a centrally pivoted rocking arm on which it is mounted, a cutting disc, a centrally pivoted rocking arm on which it is mounted, inter-meshing gears to one of which each arm is eccentrically pivoted, to impart a longitudinal movement to both the delivery tube and cutter as well as a lateral vibration relatively to the normal line of travel of the continuous cigarette, a driving-shaft, gearing connecting the driving-shaft with the inter-meshing gears and gearing connecting the driving shaft with the cutter to rotate the latter, substantially as hereinbefore set forth. 15th. The combination of a delivery tube, a cutter, an arm on one end of which the cutter is mounted, means connected with the opposite end of the arm to vibrate it, a swivel bearing through which the arm extends, and means for adjusting the bearing to vary the throw of the cutter, substantially as hereinbefore set forth.

No. 51,626. Drill Chuck. (Mandrin de foret.)

David Weir and Chauncy Rhodes, both of Hartford, Connecticut, U.S.A., 11th March, 1896; 6 years. (Filed 23rd January, 1896.)

Claim.—1st. In a chuck, the combination with a body having a bore for the reception of a tool or article, and also having radial recesses opening into said bore, of clamping-jaws comprising a main clamping part and a shank, and each of said jaws having a recess in the upper edge and adjacent to the juncture of said main clamping part and the shank, a divided non-rotatable actuating member having a screw-threaded periphery, and adapted to engage the recesses in the jaws, and also having recesses on one of its side faces adapted to be engaged by the clamping jaws, and means for actuating said actuating member and thereby the jaws, substantially as described. 2nd. In a chuck, the combination with the body having a bore therein for the reception of the tool or article and having radial recesses opening into said bore and forming inclined seats, and also having laterally extending grooves opening into said recesses, clamping jaws movable in said recesses, each of said jaws comprising a main clamping part and a shank having an inclined lower edge, a reinforcing rib extending laterally from the lower edge of each jaw, and adapted to engage in one of the laterally-extending grooves, and each of said clamping jaws also having a perpendicular recess in the top edge of the shank, and adjacent to the juncture of said shank and main clamping part, a divided non-rotatable ring adapted to engage said recesses of the jaws, and having recesses on one of its ends side faces adapted to be engaged by said jaws, and means for actuating said ring and thereby the jaws, substantially as described. 3rd. In a chuck, the combination

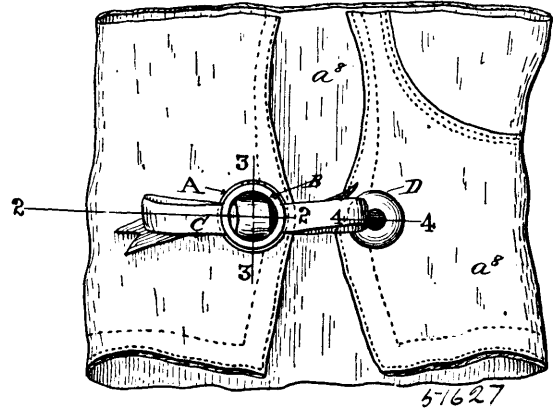
with a body having a bore for the reception of the tool or article, and also having radial recesses opening into said bore and forming inclined



seats in the rear of said bore, and also having laterally-extending inclined grooves in the sides of said recesses, clamping jaws movable in said radial recesses and having inclined lower edges adapted to engage said inclined seats, and also having laterally extending reinforcing ribs engaging in said laterally-extending grooves, each of said jaws also having a recess in its upper edge remotely disposed from the ends thereof and above said reinforcing rib, a non-rotatable member adapted to engage the recesses of the clamping jaws and also having recesses in one of its side faces adapted to be engaged by the clamping jaws, and means for actuating said member and thereby the jaws, substantially as described. 4th. In a chuck, the combination with a body having a bore for the reception of the tool or article, and also having radial recesses opening into said bore, clamping jaws movable in said recesses, and having recesses adjacent to their upper edges, a divided non-rotatable actuating ring engaging the recesses of the clamping-jaws and comprising two substantially semi-circular members, said actuating ring having radial notches in one of its side faces and screw-threads on its peripheral face, and said ring being divided on a line through one of said notches and between the other notches, and each of said notches being engaged by a clamping-jaw, whereby a portion of each member of the actuating ring adjacent to the divided notch will be in engagement with one of the clamping-jaws, so that each member is engaged by two clamping-jaws, and the pressure of said jaws on the rings equalized, and the actuating member prevented from having a tipping action, and a rotatable sleeve having internal screw-threads engaging the screw-threads on the exterior face of the actuating member, whereby on the rotation of said sleeve said clamping jaws will be actuated, substantially as described. 5th. In a chuck, the combination with a body having a bore for the reception of the tool or article, and embodying a cone-shaped head having screw threads adjacent to the rear part thereof, said body having radial recesses extending substantially from end to end thereof, and from the outer face of said body to, and opening into the bore thereof, and forming inclined seats in the rear of said bore, and also having laterally extending grooves in the sides of the recesses in the rear of said bore, clamping jaws movable in said recesses and each of said jaws having a main clamping part and a shank having an inclined lower edge provided with a laterally-extending reinforcing rib adapted to engage one of the laterally-extending grooves, and also having a perpendicular recess in its upper edge and adjacent to the juncture of said shank and main part, a divided, non-rotatable, exteriorly screw-threaded member adapted to engage the vertical recesses of the jaws, and having recesses in one of its side faces adapted to be engaged by the clamping jaws, an exteriorly screw-threaded actuating-sleeve in engagement with said screw-threaded member, and a conical shell engaging the cone-shaped head, and having interior screw-threads in engagement with the screw-threads of the cone-shaped head, substantially as described. 6th. In a chuck, the combination with a body having a bore for the reception of the tool or article, and embodying a body portion having an annular flange adjacent to its rear end, of larger diameter than said body portion, and having a recess in the periphery thereof, a cone-shaped head also having an annular flange of larger diameter than said body portion, and having screw-threads on its periphery, said body having radial recesses extending substantially from end to end thereof, and from the outer face of said body to, and opening into,

the bore thereof, and forming inclined seats in said body portion in the rear of said bore, said body portion also having laterally-extending grooves in the sides of recesses in the rear of said bore, clamping jaw movable in said recesses, and each of said jaws having a main clamping part, and a shank having an inclined lower edge provided with a laterally-extending reinforcing rib adapted to engage in one of the laterally-extending grooves, and also having a perpendicular recess in the upper edge and adjacent to the juncture of said shank and main part, a divided, non-rotatable, exteriorly screw-threaded member adapted to engage the vertical recesses of the jaws and having recesses in one of its side faces adapted to be engaged by the clamping jaws, an exteriorly screw-threaded actuating sleeve and engagement with said screw-thread ring, and having recesses adjacent to its ends, and a conical shell engaging the cone-shaped head and having interior screw-threads in engagement with the screw-threads of the cone-shaped head annular flange, and also having an annular recess, whereby the recesses of said rear annular flange, and the conical shell form guides for the rotatable actuating sleeve, substantially as described.

No. 51,627. Fastener. (Attache.)



Anthony B. Silverston, and Charlie Thaw, both of St. Louis, Missouri, U.S.A., 11th March, 1896; 6 years. (Filed 27th January, 1896.)

Claim.—1st. The combination in a button fastener of a spring socket and a stud having a head engaged by said socket substantially as described. 2nd. A socket having an inwardly projecting perforated annular ring with elastic segments. 3rd. A socket encircled by an annular concavity on the outside and having a corresponding annular convex portion on the inside said concavo convex portion containing a series of perforations dividing it into segments and the segments between said perforations being elastic, substantially as described. 4th. A socket having an inwardly projecting annular shoulder or ring, divided by a series of slots into curved segments and said segments being elastic substantially as described. 5th. The combination of a stud having a head, and a socket having an annular shoulder or ring divided up into segments by perforations and said segments being elastic and said stud being engaged by said segments substantially as described. 6th. The combination of a bow holder and means fastening said holder to a backing of fabric or leather substantially as described. 7th. The combination with a button fastener of a holder for a bow, consisting of a clasp, means permanently securing one end of the clasp to the fastener, and a catch detachably securing the other end to the fastener, substantially as described. 8th. The combination of a button fastener, consisting of a stud and a spring socket engaging the stud, and a bow holder attached to the outer part of said button fastener substantially as described. 9th. The combination in a fastener of a socket formed in one piece and having spring segments integral therewith substantially as described. 10th. The combination of a socket or holder having an annular groove on the outside and a corresponding annular convex portion on the inside said concavo convex portion, containing a series of perforations dividing it into elastic segments, and a piece of flexible material entering and held within said annular groove substantially as described.

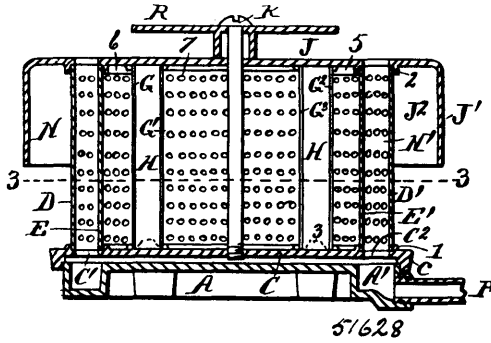
No. 51,628. Hydro-Carbon Burner.

(Foyer à hydro-carbures.)

Edwin G. Mummery, and John Hutton, both of Detroit, Michigan, U.S.A., 11th March, 1896; 6 years. (Filed 25th January, 1896.)

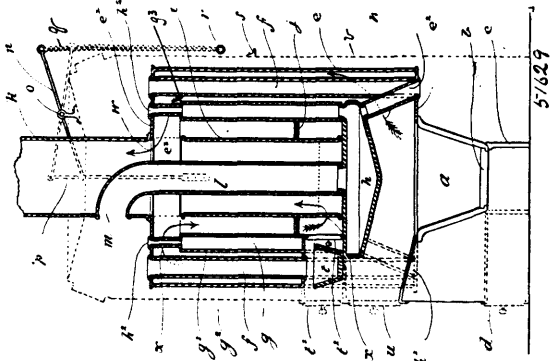
Claim.—1st. In a hydro-carbon burner, the combination of a base formed with outer and inner channels, a base plate provided with outer and inner openings therethrough, foraminous wall located at the sides of said inner and outer openings of the base plate, separated end castings engaging the extremities of said foraminous walls, and a cover plate resting upon the upper edges of said foraminous walls and end castings, substantially as set forth. 2nd. In a hydro-carbon burner, the combination of a base formed with an outer channel and

with interior channels communicating intermediate their extremities with said outer channel, a base plate constructed with outer arc-



shaped openings C¹, C², and inner arc-shaped openings C³, C⁴, foraminous walls located at the sides of said openings of the base plate, and castings engaging the extremities of said foraminous walls and a cover plate resting upon the upper edges of said walls and end castings, said end castings spaced apart to form air openings therebetween, substantially as set forth. 3rd. In a hydro-carbon burner, the combination of a base provided with outer and inner communicating channels, a base plate thereabove formed with outer openings C¹, C², and inner openings C³, C⁴, foraminous walls located about said openings of the base plate forming combustion chambers above said openings, end walls engaging said foraminous walls, and a cover plate, said foraminous and end walls forming interior air chambers opening to the atmosphere at the sides of the burner, said combustion chambers opening through said cover plate, substantially as set forth. 4th. In a hydro-carbon burner, the combination of an imperforate base provided with an outside channel and inside channels communicating intermediate their ends with the outside channel, a plate located above said base constructed with elongated orifices above said inside channels, and above portions of the outside channel of the base, foraminous walls located at each side of the orifices of said plate forming combustion chambers N, N¹, P, P¹, and air chambers 5, 6, 7, and a cover plate provided with orifices above said combustion chambers, the combustion chambers N, N¹, being separated at the extremity thereof to form air inlet openings L, L¹, and said combustion chambers P, P¹, separated at their extremities to form air inlet openings M, M¹, substantially as set forth. 5th. In a hydro-carbon burner, the combination of a base provided with an outer channel A¹, and with inner channels A², A³, communicating with the outer channel, a base plate provided with elongated openings C¹, C², and C³, C⁴, foraminous walls located about said openings in the base plate forming combustion chambers above said openings, and a cover plate resting on the upper edges of said foraminous walls formed with openings J¹, J², and J³, J⁴, above said combustion chambers, said foraminous walls forming interior air chambers, said combustion chambers having air inlet openings between their extremities leading into said air chambers, substantially as set forth. 6th. In a hydrocarbon burner, the combination of a base provided with an outer channel A¹, and with inner channels A², A³ communicating with the outer channel, a base plate provided with elongated openings C¹, C² and C³, C⁴, foraminous walls located about said openings in the base plate forming combustion chambers above said openings, and a cover plate resting on the upper edges of said foraminous walls formed with openings J¹, J² and J³, J⁴ above said combustion chambers, and a spreader above said cover plate, said foraminous walls forming interior air chambers, said combustion chambers having air inlet openings between their extremities leading into said air chambers, substantially as set forth.

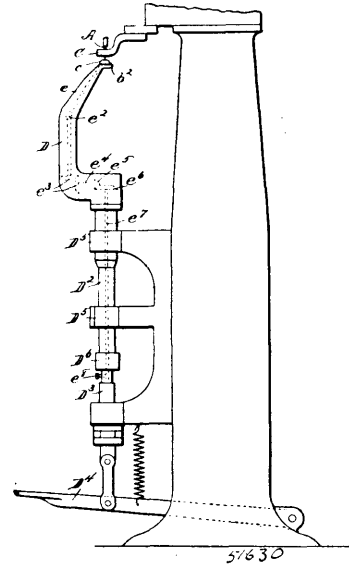
No. 51,629. Air Heating Apparatus. (Calorifere à air.)



William Arthur Babb Fishleigh, Indian Head, Assiniboia, N.W.T., Canada, 11th March, 1896; 6 years. (Filed 27th February, 1896.)

Claim.—1st. In an air heating apparatus the circular or rectangular chamber c³, constructed of the casing c, top plate c¹, bottom plate c², with inner heating chambers h and g, with tubes h², h², and inlet tubes h¹, h¹, moveable cylinder i, guide ring j, forked lever n, fulcrum o, rods p, p, chain q, ring r, pin s, central air tube l, with or without the tubes f, f, f, substantially as and for the purpose above set forth 2nd. In an air heating apparatus, the circular or rectangular chamber c³, constructed of the casing c, top plate c¹, bottom plate c², with inner heating chambers h and g, with tubes h², h², and inlet tubes h¹, h¹, moveable cylinder i, guide rings j, forked lever n, fulcrum o, rods p, p, chain q, ring r, pin s, central tube l, with or without the tubes f, f, f, in combination with the fire pot a, grate b, ash pit stand c, door d, outer casing v, fire door u, water tank t, water tank door t¹, clean out door t², substantially as and for the purpose above set forth.

No. 51,630. Pegging Machine. (Machine à cheviller.)



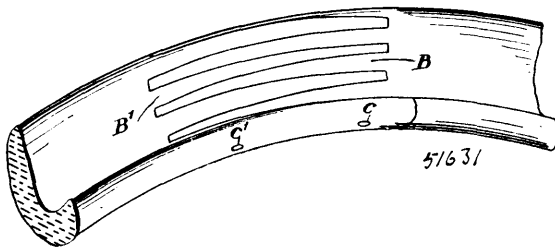
John Francis Davey, Marlborough, Massachusetts, U.S.A., 12th March, 1896; 18 years. (Filed 11th February, 1896.)

Claim.—1st. A work support for pegging machines comprising a horn tip provided with a supporting annulus, combined with a button having a shank contained within said annulus and a supporting portion resting on said annulus, said button being provided with external gear teeth in a portion of its surface in bearing engagement with said annulus, substantially as described. 2nd. The combination of the rotatable horn of a pegging machine, with a work supporting button pivotally supported in the tip thereof and provided with an eccentric awl passage and means for preventing rotation of the button when the horn is turned, substantially as and for the purpose described. 3rd. The combination of the rotatable horn of a pegging machine, with a work supporting button pivotally supported in the tip thereof and provided with an eccentric awl passage and a slot extending laterally therefrom to the other side of the axis of the button, and means for preventing rotation of the button when the horn is turned, substantially as and for the purpose described. 4th. The combination of the rotatable horn of a pegging machine with the awl arranged eccentric to the axis of rotation of the horn, said awl having a feed movement from one to the other side of the axis of the horn, substantially as described. 5th. A work supporting button for a pegging machine horn having a bearing portion and anvil portion projecting above the same, an eccentric awl passage extending through said anvil portion and a lateral opening or peg slot at the opposite side of the button head, substantially as and for the purpose described. 6th. The combination of the rotatable horn of a pegging machine, with a work supporting button having a bearing portion and top or head projecting above the same, said button being provided with an awl passage, and the head provided with a lateral opening or peg slot, the width of which is increased towards the periphery of the button head, and means for preventing rotation of the button when the horn is turned, substantially as described. 7th. The combination of the rotatable horn of a pegging machine with a work supporting button having a bearing portion and anvil portion projecting above the same and an awl passage, and a lateral opening or peg slot at one side of the anvil portion of the head, said anvil portion being recessed at one side of said awl passage and slot, and means for preventing rotation of the button when the horn is turned, substantially as and for the purpose described. 8th. A work support for a pegging machine comprising a horn tip provided with a supporting annulus, combined with a work supporting button supported in said annulus and having an

anvil portion extending above the same, said button being provided with an awl passage extending wholly through the same within the opening of the annulus, and a lateral peg slot in the anvil portion above the annulus, substantially as described. 9th. The combination of the rotatable horn of a pegging machine with a work supporting button having a bearing portion and anvil portion projecting above the same to support the material during the pegging operation, the said anvil portion being recessed at one side to afford clearance for a previously driven row of pegs, and means for preventing rotation of the button when the horn is turned, substantially as described. 10th. The combination of the horn adapted to rotate upon a vertical axis provided at its tip with a supporting annulus concentric with its axis of rotation, with a button supported by said annulus and provided with an eccentric awl passage within the opening of the annulus, and means for preventing rotation of the button when the horn is turned, substantially as and for the purpose described. 11th. The combination of a horn adapted to rotate about a vertical axis provided with a supporting annulus at its tip, with a button having a shank contained within said annulus, and an anvil portion projecting above the said annulus, said button being provided with an awl passage within the annulus, and a lateral peg slot in the portion above the annulus, and means for preventing rotation of the button when the horn is turned, substantially as described. 12th. The combination of a horn adapted to rotate about a vertical axis, provided with a supporting annulus at its tip, with a button having a shank contained within said annulus, and an anvil portion projecting above said annulus, said button being provided with an eccentric awl passage within the annulus, and a slot extending therefrom through and to the other side of the axis of the button, and with a lateral opening or peg slot in the anvil portion of the button, and a recess in the anvil portion at the side of the awl passage and peg slot, and means for preventing rotation of the button when the horn is turned, substantially as described. 13th. A work supporting button for a pegging machine horn having a pivotal bearing shank, and an anvil portion projecting above said shank and provided with an eccentric awl passage and slot in lateral continuation thereof extending through said anvil portion into said shank portion, and a lateral opening through the anvil portion communicating with said slot and awl passage, substantially as and for the purpose described. 14th. A work supporting button for a pegging machine horn, comprising a shank portion and an anvil portion projecting above and outward over said shank portion, the lower surface of said anvil portion and outer surface of the shank portion constituting the pivotal bearing portion of the button, said button being provided with gear teeth in said bearing portion, and with an eccentric awl passage and slot in lateral continuation thereof extending through said anvil portion into said shank portion, and a lateral opening or peg slot in said anvil portion communicating with said slot and awl passage, substantially as and for the purpose described.

No. 51,631. Wooden Rim for Wheels.

(*Jante de roue en bois.*)



Charles Robert Peterkin, Toronto, Ontario, Canada, 12th March, 1896; 6 years. (Filed 10th February, 1896.)

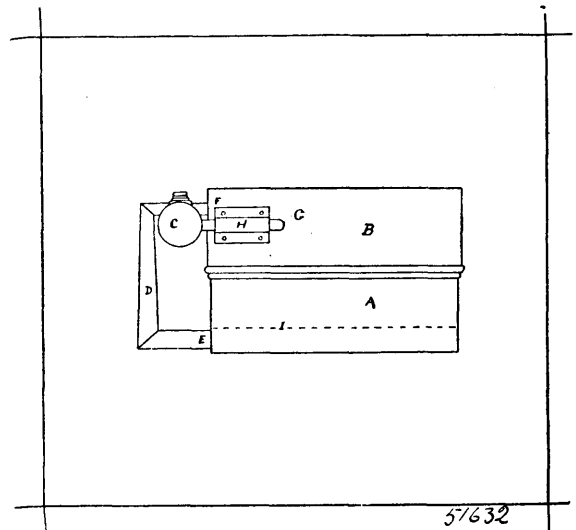
Claim.—1st. In a wheel a wood rim comprising an endless strip of wood bent in circular form and having a channel in the outside periphery and the inner periphery convex, the ends of the strip being formed into tapered tongues, the widest portion being next the uncut portion of the rim while the narrow portion is at the outer end, the interfitting tongues being concaved at the exterior of the rim and convexed at the interior and suitably glued together as and for the purpose specified. 2nd. In a wheel the combination of the wood rim comprising an endless strip of wood bent in circular form and having a channel in the outside periphery and the inner periphery convex, the ends of the strip being formed into tapered tongues, the widest portion being next the uncut portion of the rim while the narrow portion is at the outer end, and the interfitting tongues being concaved at the exterior of the rim and convexed at the interior and suitably glued together, of holes made through the interfitting tapered tongues near their outer ends and base and pins extending through such holes as and for the purpose specified.

No. 51,632. Pan for Baking Bread.

(*Casseroles pour cuire le pain.*)

Norman Chester Lloyd, Almonte, Ontario, Canada, 12th March, 1896; 6 years. (Filed 11th February, 1896.)

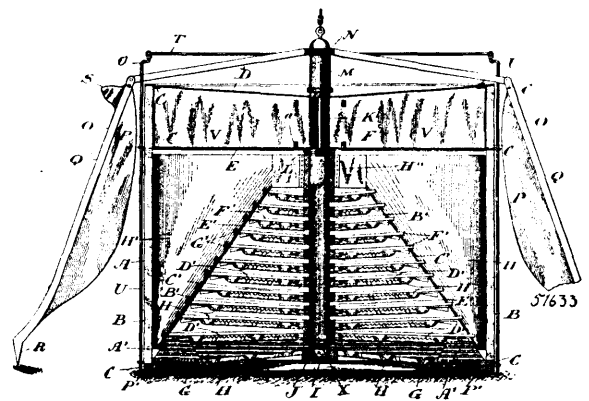
Claim.—1st. The combination of the chamber C pipes D of perforated false bottom T and divisions K K opening F E in pan A



and cover B substantially as and for the purpose hereinbefore set forth. 2nd. The combination of a bread baking pan having a perforated false bottom T having a pipe D leading from a chamber C to the opening E beneath the perforated false bottom T and above the pan bottom one half inch, the chamber C having a pipe J of smaller diameter leading to cover B through opening F one half inch from the top of cover B having sheaths H H and slides G G substantially as and for the purposes hereinbefore set forth. 3rd. The combination of a bread baking pan having divisions K K when a plurality of loaves are required substantially as and for the purpose herein set forth.

No. 51,633. Automatic Gold Collecting Apparatus.

(*Appareil automatique pour recueillir l'or.*)



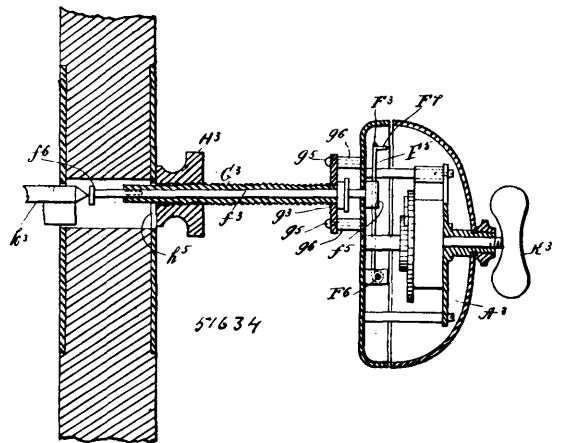
John Reitter Brown, Harrison Hot Springs, British Columbia, Canada, 12th March, 1896; 6 years. (Filed 8th November, 1895.)

Claim.—1st. In an apparatus of the class described, a series of amalgamated plates connected to a central shaft so that they may be suspended in the bed of a stream, substantially as and for the purpose specified. 2nd. In an apparatus of the class described, a series of amalgamated plates connected to a central shaft so that they may be suspended in the bed of a stream, in combination with a series of wings adapted to revolve on the shaft, and provided with ribbons to move over the plates and prevent accumulations of sand and light gravel, substantially as and for the purpose specified. 3rd. In an apparatus of the class described, a series of amalgamated plates connected to a central shaft so that they may be suspended in the bed of a stream, in combination with a series of wings adapted to revolve on the shaft, and provided with ribbons to move over the plates and prevent accumulations of sand and light gravel, and a surrounding cage of flat iron bars turned to direct the current obliquely against the wings, substantially as and for the purpose specified. 4th. In an apparatus of the class described, a series of amalgamated plates connected to a central shaft so that they may be suspended in the bed of a stream, in combination with a series of wings adapted to revolve on the shaft, and provided with ribbons to move over the plates and prevent accumulations of sand and light gravel, and a surrounding cage of flat iron bars turned to direct the

current obliquely against the wings and to keep out the coarse gravel and supporting braces provided with wings set in planes radiating from the centre of the apparatus, substantially as and for the purpose specified. 5th. In an apparatus of the class described, a series of amalgamated plates connected to a central shaft so that they may be suspended in the bed of a stream, and a surrounding cage of flat iron bars turned to direct the current obliquely against the wings, substantially as and for the purpose specified. 6th. In an apparatus of the class described, a series of amalgamated plates connected to a central shaft so that they may be suspended in the bed of a stream, and a surrounding cage of flat iron bars turned to direct the current obliquely against the wings, and supporting braces provided with wings set in planes radiating from the centre of the apparatus, substantially as and for the purpose specified. 7th. In an apparatus of the class described, a series of slightly concave amalgamated plates connected to central hollow shaft, openings being provided in the plates around the said shaft, in combination with a chamber having radial partitions therein adapted to direct the flow of water in the stream into openings in the central hollow shaft on the up-stream side of the same, and a bottom plate fitted closely to the hollow shaft below openings formed in the same, substantially as and for the purpose specified. 8th. In an apparatus of the class described, a series of slightly concave amalgamated plates connected to central hollow shaft, openings being provided in the plates around the said shaft, in combination with a chamber having radial partitions therein, adapted to direct the flow of water in the stream into openings in the central hollow shaft on the up-stream side of the same, and a slightly convex bottom plate fitted closely to the hollow shaft below openings formed in the same, substantially as and for the purpose specified. 9th. In an apparatus of the class described, a series of slightly concave amalgamated plates connected to central hollow shaft, openings being provided in the plates around the said shaft, in combination with a chamber having radial partitions therein adapted to direct the flow of water in the stream into openings in the central hollow shaft on the up-stream side of the same, a bottom plate, and a bottom plate fitted closely to the hollow shaft below openings formed in the same, and a series of amalgamated rings arranged between the bottom plate and the next above, the rings being corrugated alternately longitudinally and transversely, substantially as and for the purpose specified. 10th. In an apparatus of the class described, a series of slightly concave amalgamated plates connected to central hollow shaft, openings being provided in the plates around the said shaft, in combination with a chamber having radial partitions therein adapted to direct the flow of water in the stream into openings in the central hollow shaft on the up-stream side of the same, a bottom plate, a bottom plate fitted closely to the hollow shaft below openings formed in the same, a series of wings adapted to revolve on the central shaft, and ribbons carried by the said wings just above the surface of each of the upper plates, substantially as and for the purpose specified. 11th. In an apparatus of the class described, a series of slightly concave amalgamated plates connected to central hollow shaft, openings being provided in the plates around the said shaft, in combination with a chamber having radial partitions therein adapted to direct the flow of water in the stream into openings in the central hollow shaft on the up-stream side of the same, a bottom plate fitted closely to the hollow shaft below openings formed in the same, a series of wings adapted to revolve on the central shaft, ribbons carried by the said wings just above the surface of each of the upper plates, a surrounding cage of flat iron bars turned to direct the current of the river obliquely against the wings, substantially as and for the purpose specified. 12th. In an apparatus of the class described, a series of slightly concave amalgamated plates connected to central hollow shaft, openings being provided in the plates around the said shaft, in combination with a chamber having radial partitions therein adapted to direct the flow of water in the stream into openings in the central hollow shaft on the up-stream side of the same, a bottom plate fitted closely to the hollow shaft below openings formed in the same, a series of wings adapted to revolve on the central shaft, ribbons carried by the said wings just above the surface of each of the upper plates, a surrounding cage of flat iron bars turned to direct the current of the river obliquely against the wings, and braces adapted to support the apparatus and provided with wings set in planes radiating from the centre of the apparatus, substantially as and for the purpose specified. 13th. In an apparatus of the class described, the bars Q, and the lugs S, in combination with the ring T, and the vertical rods U, substantially as and for the purpose specified. 14th. In an apparatus of the class described, the wings O, suitable pivoted at or near the top of the apparatus and comprising the bars Q, and the sheet metal portions P, and the lugs S, in combination with the ring T, and the vertical rods U, substantially as and for the purpose specified. 15th. In an apparatus of the class described, the vertical tube I, having openings X, therein, and the bottom G, in combination with the funnel cylinder F, communicating with the tube I, the radial partitions V, the hinged gates W, springs c, and stops b, substantially as and for the purpose specified. 16th. In an apparatus of the class described, the vertical tube I, and a series of amalgamated plates D¹, connected thereto and decreasing in diameter towards the top so as to form a cone, in combination with the series of curved wings H¹, connected to a sleeve loose on the tube I, and suitably supported the inner edges of the wings conforming to the shape of the cone of plates while the outer edges conform substantially to the shape of a cylinder, substantially

as and for the purpose specified. 17th. In an apparatus of the class described, the vertical tube I, and a series of amalgamated plates D¹, connected thereto and decreasing in diameter towards the top so as to form a cone, in combination with the series of curved wings H¹, set at an angle to the vertical and connected to a sleeve loose on the tube I, and suitably supported, the inner edges of the wings conforming to the shape of the cone of plates, while the outer edges conform substantially to the shape of a cylinder, substantially as and for the purpose specified. 18th. In an apparatus of the class described, the combination of the amalgamated plates D¹, collars B¹, arms C¹, the vertical tube I, the curved wings H¹, the rings E¹, and the ribbands E¹, connected at their outer ends to the wings H¹, substantially as and for the purpose specified. 19th. In an apparatus of the class described, a plate D¹, having an opening therein, in combination with a mercury pocket H, supported below the opening and divided by the partitions I¹, substantially as and for the purpose specified. 20th. In an apparatus of the class described, a mercury pocket H, provided with overflow pockets M¹, communicating with the pocket H, by the opening N¹, substantially as and for the purpose specified. 21st. In an apparatus of the class described, a mercury pocket H, provided with overflow pockets M¹, communicating with the pocket H, by the opening N¹, covered by the shield O¹, substantially as and for the purpose specified. 22nd. In an apparatus of the class described, a series of corrugated amalgamated plates provided with mercury pockets, the said plates being connected to a central shaft so that they may be suspended in the bed of a stream, substantially as and for the purpose specified. 23rd. In an apparatus of the class described, the combination of the convex bottom G, the vertical tube having openings X therein, the nut J, the rings A¹, the amalgamated corrugated plates D¹, the collars B¹, the arms C¹, the sleeve H, the wings H¹, the rings E¹, ribbands F¹, loops G¹ connected to the wings H¹, the skeleton tube K, the threaded sleeve L, the funnel cylinder F, the radial partitions V, hinged gates W, springs c, and stops b, substantially as and for the purpose specified. 24th. In an apparatus of the class described, the combination of the convex bottom G, the vertical tube having openings X therein, the nut J, the rings A¹, the amalgamated corrugated plates D¹, the collars B¹, the arms C¹, the sleeve H, the wings H¹, the rings E¹, ribbands F¹, loops G¹, connected to the wings H¹, the skeleton tube K, the threaded sleeve L, the funnel cylinder F, the radial partitions V, hinged gates W, springs c, stop b, and a cylindrical cage A comprising the rings C and the bars B radially arranged opposite the funnel cylinder F and obliquely twisted opposite the plates D¹, substantially as and for the purpose specified.

No. 51,634. Burglar Alarm. (Avertisseur à sonnerie.)

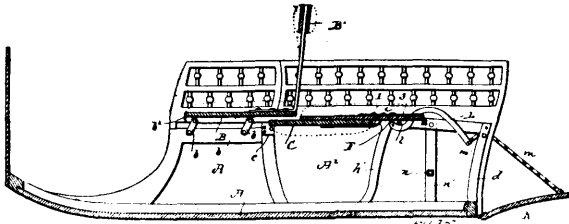


Thomas James Sutton, New York, State of New York, U.S.A.,
12th March, 1896; 6 years. (Filed 12th February, 1896.)

Claim.—1st. The combination with an alarm bell, of a push rod by which the same is adapted to be operated, said push rod being adapted to be inserted into the key hole of a door, and said alarm bell and said push rod being adapted to be secured thereto, and said push rod being also adapted to be operated by a key inserted from the opposite side of the door, substantially as shown and described. 2nd. The combination with an alarm bell which is adapted to be operated by a push rod, of a tubular casing secured thereto, in which said push rod is mounted, the end of said tubular casing being adapted to be inserted into the key hole of a door, and said push rod being adapted to be operated by a key inserted at the opposite side of the door, substantially as shown and described. 3rd. The combination with an alarm bell which is adapted to be operated by a push rod, of a tubular casing secured thereto, in which said push rod is mounted, the end of said tubular casing being adapted to be inserted into the keyhole of a door, and said push rod being adapted to be operated by a key inserted at the opposite side of the door, the casing of the alarm bell being provided with an arm which is connected therewith, in connection with which the

push rod operates, and one end of said arm being adapted to operate in connection with an arm or rod connected with a verge which is pivotally supported adjacent to a ratchet-wheel, and adapted to operate in connection therewith, substantially as shown and described. 4th. The combination with an alarm bell adapted to be operated by a push pin, of an attachment secured thereto, consisting of a base plate, a fixed arm on the base plate, an arm pivoted to the base plate above said fixed arm, cross plates on said arms, and a sliding rod between the arms one end of which is adapted to operate the push pin, and the other end to enter the key hole of the door, substantially as shown and described. 5th. The combination with an alarm bell operated by a push pin extending through the casing thereof, of an attachment secured thereto provided with a clamp or clamps for securing it to or in the key hole of a door, and a sliding rod for operating the push pin of the bell which extends into the key hole of the door and is adapted to be operated by a key inserted therein, substantially as shown and described. 6th. The combination with an alarm bell operated by a push pin, of an attachment secured thereto, consisting of a base plate having a fixed arm, and an arm one end of which is pivoted thereto above the fixed arm, and each arm being provided with cross-plates through one of which extends screws adapted to bear upon the other, and a sliding rod between said arms, one end of which is adapted to be pressed against the push pin, and the other to extend into the key hole of a door, and be operated by a key inserted therein, said rod being provided with a cross-head at its outer end, and an arm secured thereto, near its inner end by which it may be turned in its bearings or supports, the arrangement being such that the arms can be secured within the key hole of a door by means of the screws operating on the arms, substantially as and for the purpose set forth. 7th. The combination with an alarm bell which is adapted to be operated by a push rod, of a tubular casing secured thereto, in which said push rod is mounted, the end of said tubular casing being adapted to be inserted into the key hole of a door, and said push rod being adapted to be operated by a key inserted at the opposite side of the door, the casing of the alarm bell being provided with an arm which is connected therewith, and one end of said arm being adapted to operate in connection with an arm or rod connected with a verge which is pivotally supported adjacent to a ratchet-wheel, and adapted to operate in connection therewith, and the shaft of said verge being provided with an arm at the end of which is a head which is adapted to sound the alarm, substantially as shown and described. 8th. The combination with an alarm bell which is adapted to be operated by a push rod, of a tubular casing secured thereto, in which said push rod is mounted, the end of said tubular casing being adapted to be inserted into the key hole of a door, and said push rod being adapted to be operated by a key inserted at the opposite side of the door, and said tubular casing being provided with a shoulder or projection, at the outer end thereof, and being also screw threaded and provided with a correspondingly threaded and adjustable head which is mounted thereon, substantially as shown and described. 9th. The combination with an alarm bell, which is adapted to be operated by a push rod, of a tubular casing secured thereto, in which said push rod is mounted, the end of said tubular casing being adapted to be inserted into the key hole of a door, and being also provided with a detachable sleeve which is adapted to be connected therewith, whereby it is adapted for use in connection with key holes of different sizes, and said push rod being adapted to be operated by a key inserted at the opposite side of the door, substantially as shown and described.

No. 51,635. Vehicles. (Voiture.)



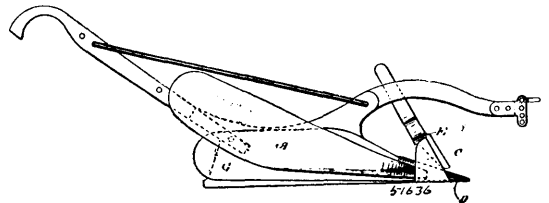
Charles H. Stratton, Buffalo, New York, U.S.A., 12th March, 1896; 6 years. (Filed 12th February, 1896.)

Claim.—1st. The combination with the vehicle body having a front seat and a rear seat, of a lazy back for said rear seat arranged to swing forward and downward for forming a deck panel and capable of reversal from the latter position to a position immediately in rear of the front seat for forming an auxiliary rear seat, substantially as set forth. 2nd. The combination with the vehicle body having a rear seat, of a carrying link pivoted at one end to the body and a lazy back for the rear seat pivoted to the opposite end of said link, substantially as set forth. 3rd. The combination with the vehicle body having a front seat and a main rear seat hinged at its front portion to the body and capable of swinging forward and downward for forming a front deck panel, and a lazy back for the main rear seat pivoted to the body by a double joint, whereby the lazy back is capable of swinging forward and downward for forming a rear deck panel and of being reversed from the latter position to a position above the main rear seat for

forming an auxiliary rear seat, substantially as set forth. 4th. The combination with the vehicle body having front and rear seats, of links pivoted at their front portions to the body, a lazy back for the rear seat pivoted to the rear ends of said links, and a catch for connecting the free or upper portion of said lazy back with said links, substantially as set forth. 5th. The combination with the vehicle body and the front and rear seats, of links pivoted at their front ends to the body, a lazy back for the rear seat pivoted to the rear ends of said links, sliding bolts guided on said lazy back and adapted to interlock with said links and a hand lever mounted on said lazy back and connected with said sliding bolts, substantially as set forth. 6th. The combination with the vehicle body and the front and rear seats, of perforated links pivoted at their front ends to the body, a lazy back for the rear seat pivoted to the rear ends of said links, sliding bolts guided on said lazy back and having bevelled outer ends adapted to enter the perforations of said links, a hand lever mounted on said lazy back and connected with said bolts, and a spring whereby said bolts are projected, substantially as set forth. 7th. The combination with the vehicle body having front and rear seats and a pivoted tail board, of a link pivoted to the body, a lazy back for the rear seat pivoted to the rear end of said link, a lifting lever pivoted to the body and operating against said link and a connection extending from said lever to the tail board, substantially as set forth. 8th. The combination with the vehicle body having fixed rear seat standards and vertically swinging rear panels arranged on opposite sides of the rear seat and capable of being raised or lowered without disturbing said seat, substantially as set forth. 9th. The combination with the vehicle body having front and rear seats and stationary front panels, of stationary supporting bars or frames secured to the bottom sills of the body independently of the sides thereof, horizontal pivots projecting from said frames, and vertically swinging rear panels mounted on said pivots and forming rearward continuations of the front panels, substantially as set forth.

No. 51,636. Plow for Making Ditches.

(*Charrue pour creuser les fossés.*)

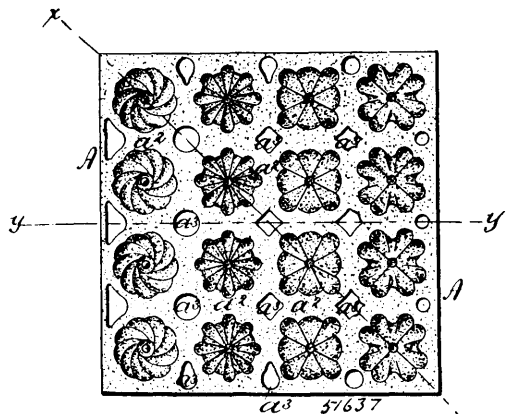


Joseph Napoleon D'Artois, Marieville, Quebec, Canada, 12th March, 1896; 6 years. (Filed 12th February, 1896.)

Claim.—1st. In a plow for making ditches, a mold-board having a flaring ear to cut one side of the side slope of the ditch and a flat horizontal cutting point to form the bottom of the ditch, substantially as described and for the purposes set forth. 2nd. In a plow for making ditches, the combination of a mold-board having a flaring ear to cut one side of the side slope of the ditch, and a flat horizontal cutting point to form the bottom of the ditch, with an ordinary colter bent so as to cut the other side of the side slope of the ditch on the same angle as the one cut by the flaring ear on the ditching mold-board, substantially as described and for purposes set forth.

No. 51,637. Flexible Mould for Candies.

(*Moule flexible pour bonbons.*)

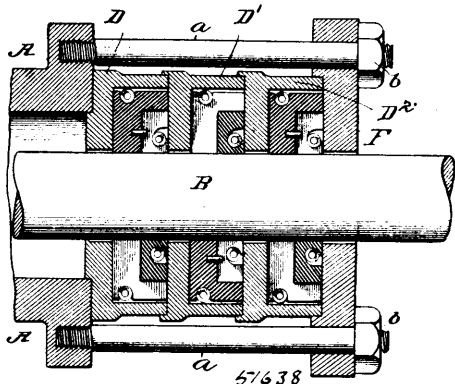


Walter Elswood Coleman, New York, U.S.A., 12th March, 1896; 6 years. (Filed 12th February, 1895.)

Claim.—1st. A permanent flexible mould for the manufacture of confectionery, formed with suitable matrices and with air spaces

between the exterior side walls of said matrices for the purpose and substantially in the manner described. 2nd. A permanent flexible mould for the manufacture of confectionary, formed with matrices of suitable design in its face, with air spaces between the exterior side walls of said matrices, and with openings in the connecting material between the matrices, said openings extending into and forming continuations of the said air spaces between the exterior side walls of the matrices, substantially in the manner and for the purpose described.

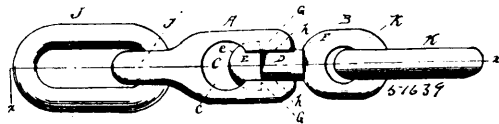
No. 51,638. Packing for Piston Rods.
(*Garniture de tige de piston.*)



Thomas H. Holmes, Wilkesbarre, Pennsylvania, U. S. A., 12th March, 1896; 6 years. (Filed 12th February, 1896.)

Claim.—1st. The combination in a rod packing, of an outer ring composed of segments of annular cross section, with an inner ring composed of segments fitted within those of the outer ring, a spring for compressing the segments of the outer ring against the rod, and a compression spring for the inner segments, contained within recesses extending laterally inward from one side of each of the segments of said inner ring, substantially as specified. 2nd. The combination of a packing ring composed of segments, each having a recess extending laterally inward from one of the side faces of the same, with an annular compression spring occupying said lateral recess, substantially as specified.

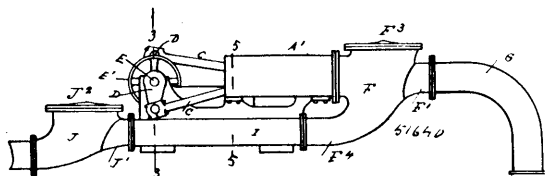
No. 51,639. Rope or Cable Coupling.
(*Joint de corde ou cable.*)



Robert Lee, Sherrard, Illinois, U.S.A., 12th March, 1896; 6 years. (Filed 12th February, 1896.)

Claim.—In a rope or cable coupling, substantially such as described, the member A provided with a longitudinal socket C which opens at one end c through one side of the member, the passage F of less diameter than the socket and forming therewith the solid abrupt shoulders or walls G, G, and the slot H connected with the passage and with the socket, and of less width than the latter and producing the overhanging flanges h, h, combined with the member B formed with the solid shank and head, said head B having a rounded side and a substantially flat face, as and for the purposes described.

No. 51,640. Pump. (Pompe.)

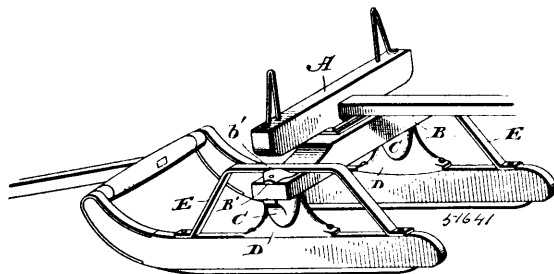


Dudley L. Smith and Frank E. Womer, both of Fairhaven, Washington, U.S.A., 12th March, 1896; 6 years. (Filed 13th February, 1896.)

Claim.—1st. In a pump, the combination with a cylinder and its piston, and a suction pipe, of an inlet chamber connected at one side with the suction pipe, and connected at the opposite side with the

working end of the cylinder, the inlet pipe being arranged about in horizontal alignment with the working end of the cylinder and provided with an inclined valve opening into the said inlet chamber, the said chamber being formed with an obstructed drop or bend curving downwardly and forwardly from the inlet opening and extending beneath the working end of the cylinder, as and for the purpose set forth. 2nd. In a pump, the combination with a cylinder and its piston, and a suction pipe, of an inlet chamber connected at one side by an inlet pipe with the suction pipe, and connected at the opposite side with the working end of the cylinder, the inlet pipe being arranged about in horizontal alignment with the working end of the cylinder and provided with an inclined valve opening into the said inlet chamber, the said chamber being formed with an unobstructed drop or bend curving downwardly directly from the inlet opening and extending beneath the working end of the cylinder, an outlet chamber provided with a valve at its inner side and arranged below the level of the inlet chamber and a pipe connecting the end of the drop or bend of the inlet chamber with the said outlet chamber, substantially as shown and described.

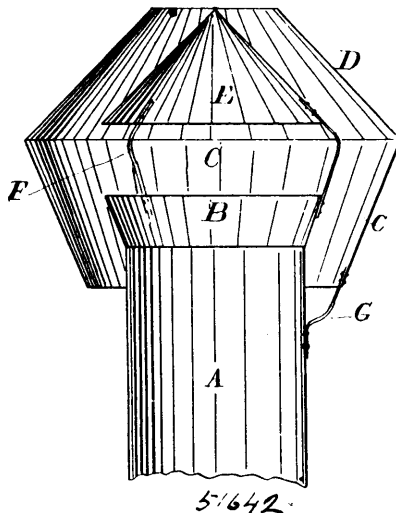
No. 51,641. Bob-Sleigh. (Traîneau-jumeau.)



Charles Edwin Gould, Fremont, Michigan, U.S.A., 12th March, 1896; 6 years. (Filed 13th February, 1896.)

Claim.—A knuckle-joint for sled knees consisting of castings B¹ and C having convex recesses to provide bearing-surfaces having side walls and projections with apertures which register with each other so that both castings are secured to the cross-bar by the same bolts, a casting D having side bearing surfaces and a central web d which are complementary to the bearing-surfaces and recesses of the casting C attached to the underside of the cross-bar, and a lar or rave E having a horizontal portion which engages with the convex bearing-surface of the casting B¹ secured to the upper side of the cross-bar, the ends of the bar or rave being attached to the runner, substantially as shown, whereby the bar or rave holds the parts in engagement with each other, and for the purpose set forth.

No. 51,642. Chimney Top and Ventilator.
(*Capuchon et ventilateur de cheminée.*)

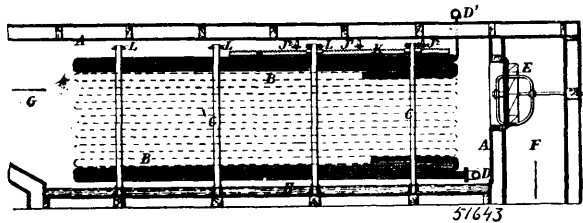


James Washington Hunt, Port Hope, Ontario, Canada, 12th March, 1896; 6 years. (Filed 13th February, 1896.)

Claim.—1st. An outer case coned up and down from its centre, open at top and bottom. 2nd. The combination of a flanged tube and cone cap with outer double cone case for the purpose herein set forth.

No. 51,643. Apparatus for Cooling Air, etc.

(Appareil pour refroidir l'air, etc.)

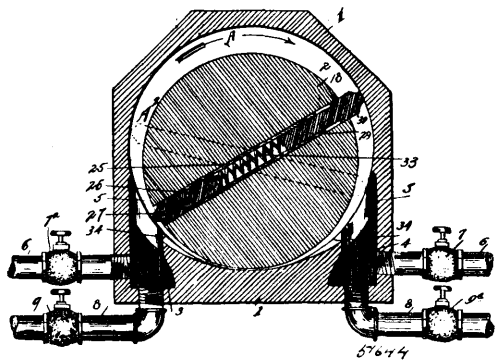


Thomas Bell Lightfoot, 35 Queen Victoria St., London, England, 12th March, 1896; 6 years. (Filed 13th February, 1896.)

Claim.—1st. In apparatus for cooling air, the combination of pipes through which volatile liquid is made to flow, arranged as a series of upright walls within a closed chamber, a tank or tray below the said pipe walls containing brine troughs or distributors arranged above the pipe walls and supplied with brine from the tank below by means of a pump, so that the brine flows down the distributors over the pipe walls into the tank, and an air propeller at the one end of the chamber for propelling air currents through the latter in contact with the cold brine flowing down over the pipe walls, substantially as described. 2nd. In combination with the air cooling apparatus referred to in the first claim, the use of vertical plates arranged between the vertical pipe walls and provided with brine distributors at top so as to afford additional wet cooling surfaces for the air currents, substantially as described. 3rd. In combination with the air cooling apparatus referred to in the first and second claims, the use of a second chamber containing heated pipes with which the cold dry air coming from the cooling chamber is brought in contact in order to furnish a supply of dry warm air suitable for thawing meat and other purposes, substantially as described.

No. 51,644. Rotary Engine or Pump.

(Machine rotative ou pompe.)



Henry Saxton, Neosho, Missouri, U.S.A., 12th March, 1896; 6 years. (Filed 14th February, 1896.)

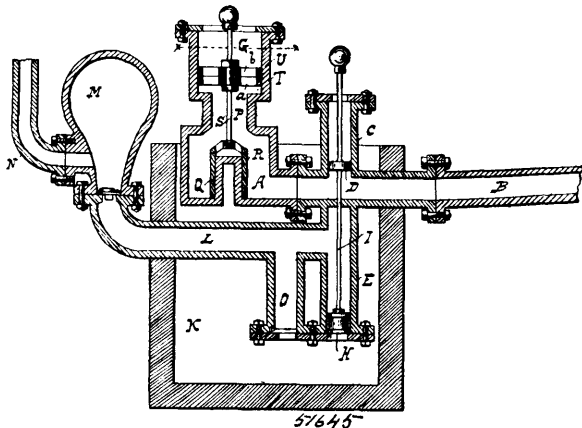
Claim.—In a rotary engine or pump, the combination of a suitable casing, a piston 18 mounted for rotation in said casing and provided with a diametrically extending circular bore or passage 23, a single tube 25 mounted to slide in said passage, two piston plates 27, 30, each having a cylindrical stem and mounted one stem to slide within one end of said tube and the other stem to slide within the opposite end of said tube, and an expansive spring 33 located within and centrally of the length of said tube, whereby said stems are urged apart and said tube is held in position, substantially as herein specified.

No. 51,645. Hydraulic Ram. (Bélier hydraulique.)

George Yellott, Towson, Maryland, U.S.A., 13th March, 1896; 6 years. (Filed 14th February, 1896.)

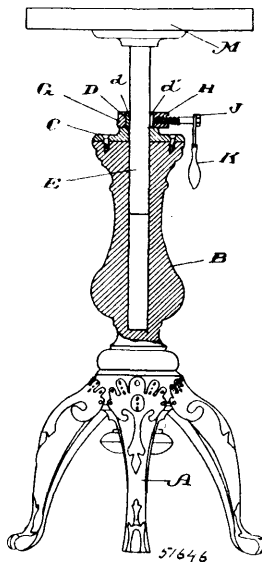
Claim.—1st. In combination with a ram chamber, a drive pipe leading to the same, a tank which surrounds the ram chamber, a stationary cylindrical guide in the ram chamber, an open top plunger adapted to slide on the said guide, a cylinder situated over the open top plunger adapted to receive the latter, an open waste water chamber, a stem leading from the open top plunger into the waste water chamber carrying a disc having variable openings, a

cylinder leading from the drive pipe having a piston and rod, another cylinder in alignment with the first provided with a piston on



the said rod, and a pipe to supply the pump cylinder with water from the tank, substantially as specified.

No. 51,646. Piano Stool. (Tabouret de piano.)



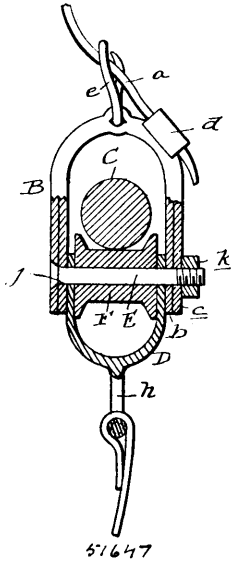
Wellington Shupe, Galt, Ontario, Canada, 13th March, 1896; 6 years. (Filed 15th February, 1896.)

Claim.—1st. A stool consisting of a seat, a seat post secured to the seat, a standard, a clamp at the top of the standard to embrace the seat post, consisting of a collar, a movable clamp member within the collar, and a screw to press the clamp member against the seat post, substantially as specified. 2nd. A stool consisting of a seat, a seat post secured to the seat, a hollow standard suitably supported on a suitable base, a plate fastened to the top of the standard, a hollow upward projection from the said plate to form a vertical sleeve, one section of the sleeve movable from the other, a resilient packing interposed between the opposite meeting edges of the said sections, a collar encircling the said sections, a screw passing through the said collar, and adapted to jam the movable section against the seat post, substantially as specified. 3rd. A stool consisting of a seat, a seat post secured to the seat, a hollow standard suitably supported on a suitable base, a plate fastened to the top of the standard, a hollow upward projection from the said plate to form a vertical sleeve, one section of the sleeve movable from the other, a resilient packing interposed between the opposite meeting edges of the said sections, a collar encircling the said sections, a hollow screw-threaded projection extending from the side of the said collar, a screw working into and out of the said projection, a crank for the screw, a projection extending from the side of the movable section of the sleeve adapted to fit the said hollow projection, substantially as specified.

No. 51,647. Shaft Tug. (Boucleteau de limonière.)

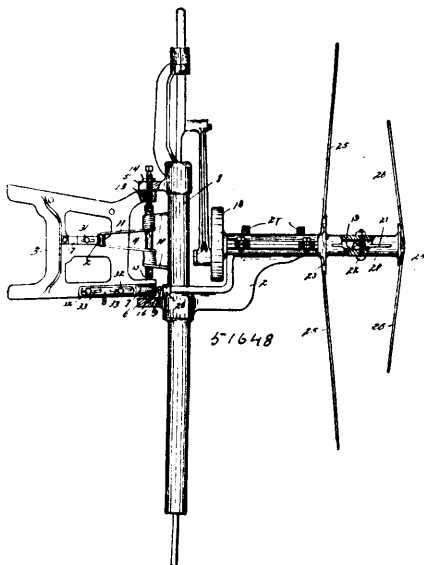
Jefferson P. Crews, Denver, Colorado, U.S.A., 13th March, 1896; 6 years. (Filed 18th February, 1896.)

Claim.—The herein described shaft loop adapted to be connected with a saddle strap and belly band of a harness, and consisting



essentially of the following instrumentalities in combination, viz., the leather loop B, having the aligned apertures j, in its branches, and adapted to be connected with a saddle strap, the casing D having the approximately U-shaped loop portion arranged between the branches of the loop B, and provided with aligned apertures in its branches, and also having the depending loop b, for the connection of a belly-band, the bolt E taking through the apertures of the loop B, and casing D, and pivotally connecting the said loop and casing so as to permit them to move independent of each other and having a head at one end and threads at its opposite end, a removable nut mounted on the threaded portion of the bolt so as to secure the same in position, and the roller F loosely mounted on the bolt and adapted to form an anti-friction bearing for a shaft passed through the loop B, substantially as specified.

No. 51,648. Wind Mill. (Moulin à vent.)



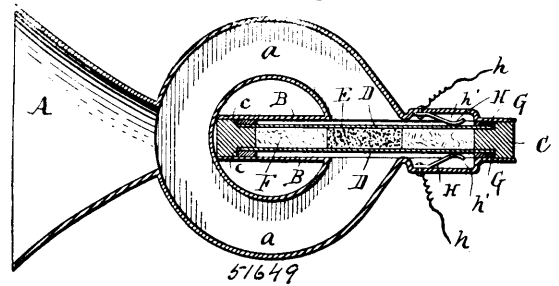
Eli J. Sebrook, Goshen, Indiana, U.S.A., 13th March, 1896; 6 years. (Filed 18th February, 1896.)

Claim.—1st. In a wind-wheel, a removable metallic hub provided with diametrically opposite slots, as shown, and having a diametric adjusting bolt passing through both the hub and the rotatable shaft, adapted to spring the opposite sides of the said hub into frictional contact with the said shaft, whereby the said bolt is relieved of lateral strain and the hub is rigidly secured in position by the said frictional contact, all substantially as described. 2nd. In a wind-mill, a spring governor to hold the wind-wheel normally in the wind,

consisting of a vertically disposed and removable rod 4 pivotally mounted in the tail-vane casting, as shown, a coil spring 11 having its coils arranged as shown, and loosely mounted on said rod, the free ends of said spring having a bearing against the main casting and the looped extended end thereof being provided with means for adjusting the tension of said spring, substantially as described. 3rd. A detachable governor for wind-mills adapted to normally keep the wind engine in gear, comprising an upright rod 4 pivotally mounted on the conical lug 15, and loosely secured at its upper end by a removable pin, as shown, a spring having two or more coils loosely mounted upon said rod, and having its free ends loosely secured by the main casting, as shown, and provided with a rearwardly extended loop having suitable means for adjusting the tension of said spring, substantially as described. 4th. In a wind-mill, a friction-brake to lock the wind-wheel when out of the wind, comprising a brake-lever 35 of spring metal pivotally mounted in a slotted lug, as shown, on the main casting, having a shoe 34 fixed thereon to engage the perimeter of the crank-wheel, and provided at its inner end with an adjustable screw 37 for the purpose described, and the flanged and slotted holding-block 41 adjustably mounted upon the tail-vane casting and adapted to automatically press the said shoe into engagement with the said crank-wheel by engaging and securing the free end of the said brake-lever, all substantially as described.

No 51,649. Telephone Transmitter.

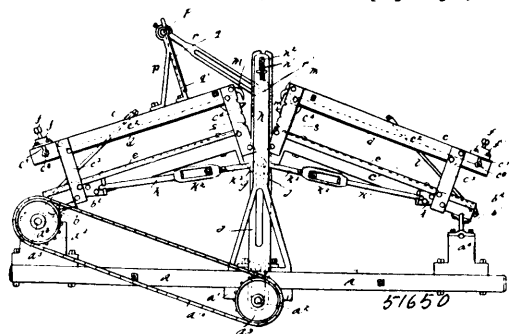
(Transmetteur téléphonique.)



Walter Louis Wilhelm, Buffalo, New York, U.S.A., 13th March, 1896; 6 years. (Filed 18th February, 1896.)

Claim.—1st. The combination with the mouth piece provided with two branch tubes, of two supporting discs secured to said tubes and separated from each other so as to form an open sided space between the discs and a transmitting device arranged in said space, substantially as set forth. 2nd. The combination with the mouth piece provided with two branch tubes, of two supporting discs secured to the open ends of the tubes and separated from each other so as to form an open sided space between the discs, a supporting frame or ring arranged between said discs and provided on opposite sides with annular seats, two diaphragms bearing with their marginal portions against said seats, packing rings fitting against the marginal portions of the diaphragms and an electrode arranged between said diaphragms, substantially as set forth. 3rd. The combination with the mouth piece provided with two branch tubes, of two supporting discs secured to the open ends of the branch tubes and separated so as to form an open sided space between the discs, a transmitting device arranged between said discs and provided with two diaphragms arranged adjacent to said discs and contact springs secured to said discs and bearing against said diaphragms, substantially as set forth. 4th. The combination with the mouth piece provided with two branch tubes, of two parallel supporting discs secured to the open ends of the branch tubes and provided on their inner sides with pockets, of a transmitting device arranged between said discs and provided with two diaphragms and contact springs secured to the bottom of the pockets and bearing against the diaphragms, substantially as set forth.

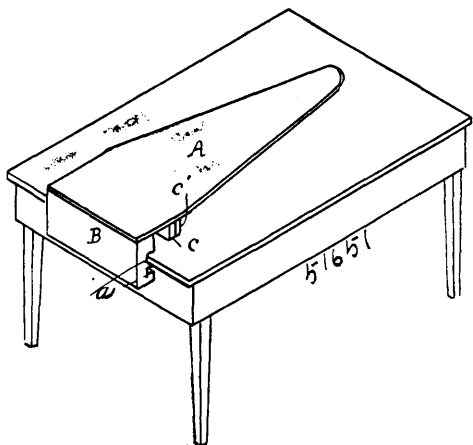
No. 51,650. Baling Press. (Presse d'emballage.)



John J. Burnshire, Dayton, Virginia, U.S.A., 13th March, 1896; 6 years. (Filed 20th February, 1896.)

Claim.—1st. A baling press composed of a divided baling box having its sections pivotally supported at their far ends and movably connected at their adjacent ends, means to raise and lower the said box-sections so as to cause their adjacent ends to open and close, and means to feed the material to be baled into such adjacent ends, substantially as described. 2nd. A baling press composed of pivoted box-sections, means to raise and lower said box-sections to cause them to open and close at their adjacent ends, and a feeding device composed of a movable member, carried by one of the box-sections, and a stationary member toward and from which last the box sections move as they are opened and closed, substantially as described. 3rd. In a baling press, the combination of a divided baling box, the said box having its sections pivoted at their far ends, and their adjacent ends connected by movable joints a pitman connected to said jointed ends, a crank shaft for actuating the pitman, means to drive the said crank shaft, and means to feed the material to be baled to said box-sections substantially as described. 4th. In a baling press, the divided press box having its sections pivoted at their far ends and their adjacent ends connected to be opened and closed after the manner of jaws, hooks arranged within the box-sections at their adjacent ends, and means to feed the material to be baled to such adjacent ends, substantially as and for the purpose specified.

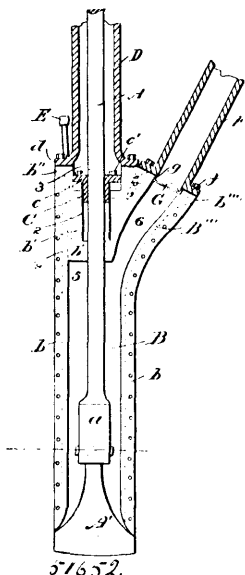
No. 51,651. Ironing Board. (*Planche à repasser.*)



Granville H. Ashworth, Sedalia, Missouri, U.S.A., 13th March, 1896; 6 years. (Filed 20th February, 1896.)

Claim.—An ironing-board, comprising the board proper, the transverse head-block secured thereto at one end portion, and having therein in its inner face, two longitudinal grooves, either of which is adapted to engage with the edge portion of a table, a transverse cleat on the under side of said board just forward of the said head-block, and a supplementary cleat hinged to the first-named cleat, substantially as specified.

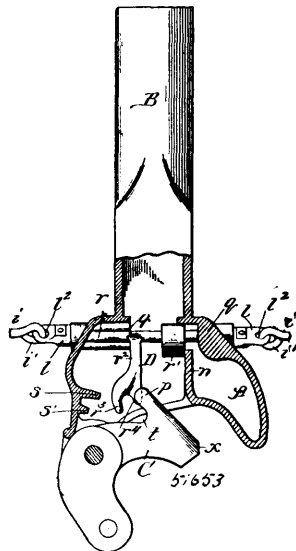
No. 51,652. Rock Drill Casing. (*Foret de mine.*)



Joseph William Cameron, Vancouver, British Columbia, Canada, 13th March, 1896; 6 years. (Filed 24th February, 1896.)

Claim.—The combination with a drill spindle with a tubular casing, a recess in the upper end of said casing, a stuffing box below said recess, a gland adapted to have its flange secured in said recess and through which said drill spindle passes, a passage for a priming pipe in said upper portion surrounding said stuffing box, a side passage branching off the main space below said stuffing box, and a valve at the upper end of said branch passage opening upwardly and said upper ends of the casing branch and pipe adapted to be connected with pipes and tubes as may be required, substantially as set forth.

No. 51,653. Car Coupler. (*Attelage de chars.*)



Joseph E. Forsyth, assignee of William Floriad White, both of Chicago, Illinois, U.S.A., 13th March, 1896; 6 years. (Filed 13th February, 1896.)

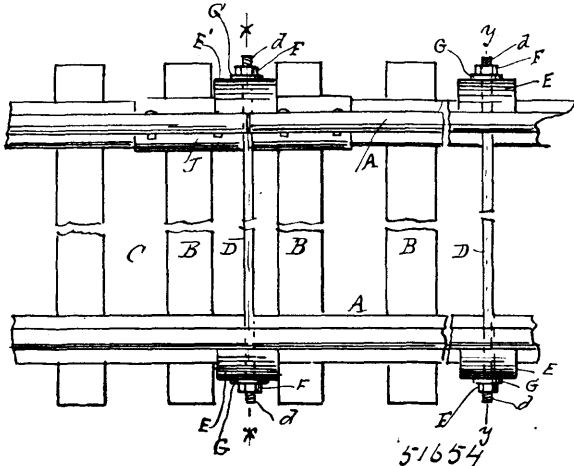
Claim.—1st. In a car-coupler, a combined locking and unlocking device for the knuckle, comprising a rock-shaft journaled in horizontal position in the draw-head and carrying toward one end, a locking-head projecting forward into the path of the tail-piece, said shaft carrying, toward its opposite end, a finger projecting forward to bear against and force out the tail-piece by turning the rock-shaft to raise the locking-head for unlocking, substantially as described. 2nd. In a car-coupler, the combination with the knuckle having its tail-piece provided with the bevelled surfaces x and x^1 , and the projection p , of a combined locking and unlocking device for the knuckle, comprising a rock-shaft carrying a locking-head projecting forward into the path of the tail-piece, and a finger r^2 projecting forward and terminating in prongs r^3 and r^4 , to bear against the bevelled surfaces x^1 , and force out the tail-piece by turning the rock-shaft for unlocking, substantially as described. 3rd. In a car-coupler, the combination with the knuckle, of a combined locking and unlocking device therefor, comprising a rock-shaft carrying a locking-head projecting forward into the path of the tail-piece, and a finger projecting forward to bear against and force out the tail-piece by turning the rock-shaft for unlocking, a tongue affording a socket flaring laterally in opposite directions from its longitudinal central portion and fastened upon said tongue, substantially as and for the purpose set forth. 4th. In a car-coupler, the combination with the knuckle, of a combined locking and unlocking device therefor, comprising a rock-shaft carrying a locking-head projecting forward into the path of the tail-piece, and a finger projecting forward to bear against and force out the tail-piece by turning the rock-shaft for unlocking, a tongue affording a flattened extremity of the rock-shaft, a cap containing a socket flaring laterally in opposite directions from its longitudinal central portion and fastened upon said tongue, and an operating rod connected with said tongue by a flexible joint, substantially as and for the purpose set forth. 5th. In a car-coupler, the combination with the knuckle having its tail-piece provided with the bevelled surfaces x and x^1 , of a combined locking and unlocking device D , comprising a rock-shaft r , terminating at its extremities in tongues o , in the flaring sockets l^1 of caps l , on said tongues and provided with eyes l^2 , said rock-shaft carrying the forward projecting locking-head r , and unlocking finger r^2 , and an operating rod m linked to the eye in a cap, the whole being constructed and arranged to operate substantially as and for the purpose set forth.

No. 51,654. Device to Prevent Railroad Rails from Spreading. (*Appareil pour empêcher les rails de chemin de fer d'écarter.*)

Calvin Keeler and George Simmons, both of Hobart, New York, U.S.A., 13th March, 1896; 6 years. (Filed 18th February, 1896.)

Claim.—In a railroad track, the combination with the rails A, A, railroad ties B, and fish-plates J, of the clamps E' having enlarged

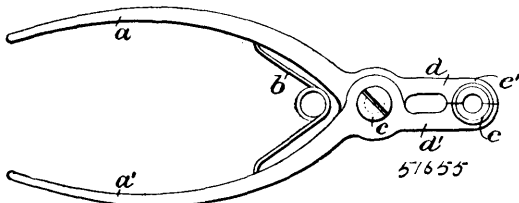
substantially as described and for the purpose set forth. 3rd. In an electric heater, the combination of a face plate adapted to be attached



recesses *f*¹ with which the fish plates engage and with apertures *c*, the oppositely and alternately arranged clamps E, having small recesses *f* in which the rail bases are seated, and formed with apertures *c*, the tie rods D tapped at opposite ends, the nuts F and washers G, G, substantially as described.

No. 51,655. Means of Repairing Pneumatic Tires.

(*Moyen de réparer les bandages pneumatiques.*)



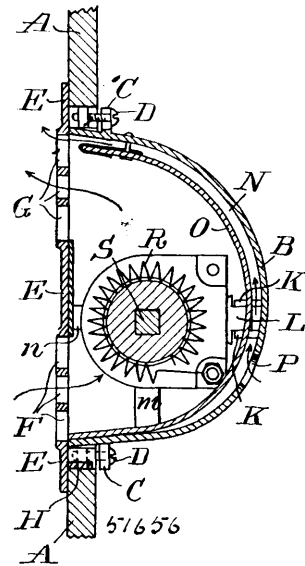
Christopher W. Youngman, assignee of Charles Edward Green, both of Chicago, Illinois, U.S.A., 13th March, 1896; 6 years. (Filed 13th February, 1896.)

Claim.—1st. The described method of patching or closing a puncture in a pneumatic tire, said method consisting in introducing into the puncture a rigid pipe or duct until its inner end extends into the air chamber of the tire, forcing through the pipe or duct a flexible patch by a blunt implement, as specified, holding the patch against the wall of the air chamber opposite the puncture while spreading cement or solvent thereon, and then pressing the walls of the tire together, withdrawing the implement and causing the patch to adhere to the punctured surface, substantially as described. 2nd. The specified means for repairing punctures in pneumatic tires, said means comprising in combination a pipe or duct in two parts, each part attached to a handle and the two handles being hinged together, whereby on insertion of the pipe or duct in a puncture the latter can be distended and a tapering guide pin, inclosed and having its point projecting beyond the inner end of said pipe or duct during the insertion thereof, and adapted to be withdrawn leaving the latter within the air chamber of the tire, substantially as described.

No. 51,656. Electric Heater. (*Chauffeur électrique.*)

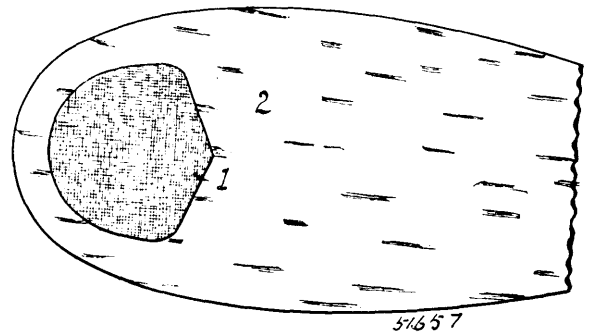
The Consolidated Car Heating Company, assignee of James F. McElroy, both of Albany, New York, U.S.A., 13th March, 1896; 6 years. (Filed 14th February, 1896.)

Claim.—1st. In an electric heater, the combination of a casing containing a resistance adapted to be heated by a current of electricity, a partition placed in the rear and upper portion of said casing, whereby an air space is formed between said partition and the back and top of said casing, through which air can circulate, said casing containing air ports, permitting air to enter said air space at its lower portion, and to emerge from said air space at its upper portion, substantially as described and for the purpose set forth. 2nd. In an electric heater, a concavo-convex box carrying a resistance, a non-conducting partition partially surrounding said resistance and forming an air space in the rear and upper portion of said box, a face plate adapted to be attached to the riser of the car seat, and having a series of perforations therein, the upper edge of said interior partition being so adjusted that the air space formed at the back of the casing communicates with the perforations in the top of said plate, while the air from the heating chamber proper is discharged through lower perforations in the front of said plate, sub-



stantially as described and for the purpose set forth. 3rd. In an electric heater, the combination of a face plate adapted to be attached to the riser of the car seat, and being provided at its upper and lower portions with a multiplicity of perforations, a casing connecting substantially air tight with the upper and lower portions of said face plate extending beyond the perforations, an interior partition forming an air space between it and the casing, and having its upper and lower edges contiguous to the extreme upper and lower openings in the face plate in such manner that the air entering the lower perforations in the face plate is divided, the lowest portion entering the air space between the casing and partition, the upper portion entering the heating space, and the air is discharged from said air space through the extreme upper portion of the perforations, and the heated air from within the casing is discharged from the lower portion of the upper perforations, and an electric heater located between said partition and said face plate, substantially as described.

No. 51,657. Composition for Protecting Leather Enamel. (*Composition pour protéger le cuir émaillé.*)



The Patent Leather Protector Company, assignee of Joseph Slater Coyte, both of New York, U.S.A., 13th March, 1896; 6 years. (Filed 18th February, 1896.)

Claim.—1st. In combination with enamelled leather, a removable flexible, adhesive protector applied to the enamelled surface of the leather and serving to prevent such enamelled surface from cracking when the leather is subjected to strain at the point where the protector is secured, substantially as described. 2nd. In combination with enamelled leather, an adhesive protector composed of gutta percha cloth applied to the enamelled surface of the leather and serving to prevent such surface from cracking when subjected to strain, substantially as described.

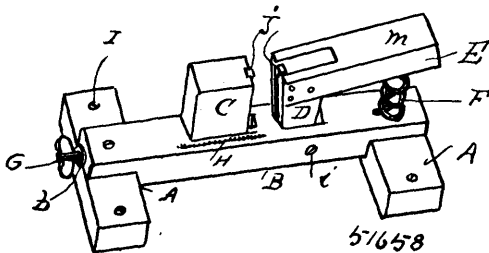
No. 51,658. Clamp for Holding Doors, etc.

(*Mordache pour portes etc.*)

George Spires, Stephen Mallory, William Fink, and William Gilson, all of Lake Odessa, Michigan, U.S.A., 13th March, 1896; 6 years. (Filed 18th February, 1896.)

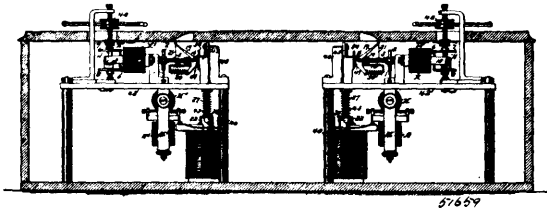
Claim.—1st. In a clamp for holding doors, windows, or the like, a sill having mounted therein a pair of clamping jaws, one of said jaws being pivoted to the frame and retained in holding contact

with the work by a spring engaging the frame and a lever arm extending from said pivoted jaw. 2nd. In a clamp for holding doors,



windows, or the like, a sill having mounted therein a pair of clamping jaws with padded faces, one of said jaws being adjustable by means of a screw mounted in the frame, engaging a nut mounted in the jaw, the other of said jaws being pivoted to the frame and retained in closing contact with the work by a spring engaging the frame and a lever arm extending from said pivoted jaw as set forth.

No. 51,659. Talautographe. (Talautographe.)



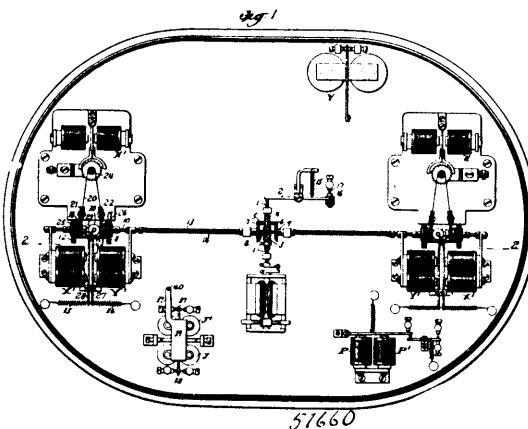
Eelisha Gray, Highland Park, Illinois, U.S.A., 16th March, 1896; 6 years. (Filed 25th May, 1895.)

Claim.—1st. The method of transmitting and recording a character by the movements of a transmitting pen and a receiving pen, by transmitting the movements of a transmitting pen into electric pulsations, sending to line in the reversing circuit a current of changed strength upon reversal of the transmitting pen in one of two crosswise directions of motion, and a current of changed polarity upon reversal in the other of the two crosswise directions of motion of the transmitting pen, thereby reversing the movement of the receiving pen in said two directions respectively, substantially as set forth. 2nd. In a talautographic system the method of reversing the direction of movement, in two directions crosswise of each other, of a receiving pen, to follow corresponding reversals in the direction of movement of the transmitting pen, which consists in causing the strength of the reversing current the change upon reversal in direction of motion of the transmitting pen in one of said two directions, and in causing a change of polarity in said current upon reversal in direction of motion of the transmitting pen in the other of said two directions, substantially as set forth. 3rd. In a talautographic system the combination of a transmitting instrument, a receiving instrument, means for causing reversals in two crosswise directions of movement of the receiving pen to cause corresponding reversals in the direction of movement of the transmitting pen, consisting of a main line wire and electrical connections for sending a current of changed strength upon reversal in one of the said two directions, and mechanism for sending a current of changed polarity upon reversal in the other of said two directions, said changes affecting corresponding reversals in the movements of the receiving pen, substantially as set forth. 4th. In a talautographic system, the combination of a transmitting instrument, a receiving instrument, two line wires for effecting two series of electrical pulsations, whereby motions in two directions crosswise of each other are imparted from the transmitting pen to the receiving pen, and reversing mechanism consisting of a single line wire provided and with electrical connections and mechanism for sending thereon a current of changed strength upon reversal of direction of motion of the transmitting pen in one of said two crosswise directions and for sending a current of changed polarity upon a reversal of the direction of motion of the transmitting pen in the other of said two crosswise directions, said changes operating to reverse the movement of the receiving pen in said two crosswise directions respectively, substantially as set forth. 5th. In a talautographic system, the combination of a transmitting pen, two electric circuits, means for sending electric pulsations over said circuits to cause the receiving pen to move in accordance with the movements of the transmitting pen, means for producing changes in said circuits, to raise and lower the receiving pen and to shift the paper at the receiving station, a reversing circuit, means for causing a change of strength in the current on the reversing circuit upon reversal in direction of motion of the transmitting pen in one of its two crosswise directions of movement, means for causing a change of polarity in the current traversing the reversing circuit upon a change in the direction of motion of the transmitting pen in the other of its two crosswise directions of movement, said changes operating to reverse the movement of the receiving pen in said two crosswise directions respectively, substantially as set forth. 6th. In

a talautographic system, the combination of a transmitting pen, two electric circuits, devices operated through said pen and producing a series of pulsations in each of said circuits, one for each of the two crosswise directions of movement of the transmitting pen, a receiving pen caused to move through said two series of pulsations in two crosswise directions, corresponding to the two crosswise directions, of the transmitting pen, means for causing a temporary change in the current of said main circuits, for raising and lowering the receiving pen, a third circuit, means for causing a change of strength in the current traversing the same upon a reversal in the movement of the transmitting pen in one of said two crosswise directions, means for changing the polarity of the current traversing said reversing current upon a reversal of the transmitting pen in the other of said two crosswise directions of movement, the receiving pen being correspondingly reversed in its movement by the said changes in the reversing current, substantially as set forth. 7th. The combination of a talautographic receiving pen, power mechanism for driving the same, a spring placed under tension by the power mechanism through which spring the power is transmitted to the receiving pen, and a circuit maker and breaker for suspending the operation of the power mechanism upon the spring when the latter has been placed under sufficient tension, substantially as set forth. 8th. The combination of a talautographic receiving pen, power mechanism for driving the same, a spring placed under tension by the power mechanism, through which spring the power is transmitted to the receiving pen for driving it in two directions, and a reversing mechanism between the spring and the receiving pen, substantially as set forth. 9th. The combination of a talautographic receiving pen, power mechanism for driving the same, a spring placed under tension by the power mechanism, through which spring the power is transmitted to the receiving pen, a reversing mechanism between the spring and receiving pen, and means for disconnecting the power mechanism from the spring when sufficient tension of the spring has been secured, substantially as set forth. 10th. The combination of a receiving pen, a spring under tension for driving it in two directions, means for maintaining a constant tension of the spring, a reversing mechanism, and a receiving pen, substantially as set forth. 11th. The combination of a talautographic receiving pen, a magnet, a reciprocating armature therefor, pawls carried by the armature, a shaft, a ratchet-wheel mounted thereon with which the pawls engage to rotate the shaft in one direction, and a spring put under tension by the rotation of said shaft and which operates through said tension to drive the receiving pen, substantially as set forth. 12th. The combination of a talautographic receiving pen, a magnet, a reciprocating armature therefor, pawls carried by said armature, shaft, a ratchet-wheel mounted thereon with which said pawls engage to rotate the shaft in one direction as the armature reciprocates, a spring put under tension by the rotation of said shaft, and which operates by reason of said tension to drive the receiving pen, and a circuit breaker in the circuit of said magnet arranged to be opened when the spring has received sufficient tension, substantially as set forth. 13th. The combination of a talautographic receiving pen, a shaft or sleeve from which the said pen is driven, means for rotating said shaft, and a spring put under tension by the rotation of the shaft and serving by means of its tension to drive the receiving pen, substantially as set forth. 14th. The combination of a talautographic receiving pen, a shaft, power mechanism for causing said shaft to rotate, a spring put under tension by means of the rotation of said shaft, and serving because of its tension to drive the receiving pen, and means for disconnecting the power mechanism from the shaft when sufficient tension of the spring has been secured. 15th. The combination of a talautographic receiving pen, power mechanism for driving the same, part of the connections between the power mechanism and the receiving pen consisting of a spring under tension, whereby the power exerted upon the receiving pen cannot exceed the tension of said spring, substantially as set forth. 16th. The combination of a receiving pen, a shaft, a power mechanism for rotating the same, a lever carried by the shaft and connected with a spring and means for changing the position of the lever as the shaft rotates and thereby putting the spring under tension, the tension of the spring serving to give movement to the receiving pen, substantially as set forth. 17th. As a regulator for limiting the power transmitted from a power mechanism to a talautographic receiving pen, a pivoted lever, a spring and a cord connected therewith, the spring being put under tension by the winding of the cord under the influence of the power mechanism, and the tension being applied to the driving of the receiving pen, substantially as set forth. 18th. The combination of a talautographic receiving pen, a shaft, power mechanism for rotating the shaft, a magnetizable disc or ring mounted upon the shaft, two magnetizable plates connected with the receiving pen and adapted to be attracted, and moved in opposite directions by the said magnetizable ring or disc, and means for causing the magnetic engagement of the ring or disc on the shaft with the said two plates alternately, thereby causing the alternate movement of the receiving pen in opposite directions, substantially as set forth. 19th. The combination of a talautographic receiving pen, a shaft, power mechanism for rotating the shaft, a magnetizable disc or ring mounted upon the shaft, two magnetizable discs connected with the receiving pen, and alternately attracted by said magnetizable ring or disc, and means for causing the magnetic engagement of the ring or disc on the shaft with the said other two discs alternately, thereby causing the alternate movement of the receiving pen in

opposite directions, substantially as set forth. 20th. A reversing mechanism for a telautographic receiver, consisting of a shaft, power mechanism for rotating the shaft, a magnetizable disc or ring mounted upon the shaft, two magnetizable plates connected with the receiving pen and adapted to be attracted and moved in opposite directions by the said magnetizable ring or disc, magnet coils for giving to each of the said magnetizable plates alternately a polarity opposite to that of the ring or disc of the shaft, so that the latter may attract the former, and electrical connections whereby upon change of direction in movement of the transmitting pen, the polarity of the said two plates will be respectively changed so as to cause a reversal in direction of movement of the receiving pen, substantially as set forth. 21st. A reversing mechanism for a telautographic receiver, consisting of a shaft, power mechanism for rotating the shaft, a magnetizable disc mounted upon the shaft, and two plates of magnetizable material connected with the receiving pen and alternately attracted by said magnetizable disc, magnet coils for giving to each of the said magnetizable plates alternately a polarity opposite to that of the disc on the shaft, so that the latter may attract the former, and electrical connections whereby upon change of direction of movement of the transmitting pen, the polarity of the said two plates will be respectively changed so as to cause a reversal in direction of movement of the receiving pen, substantially as set forth. 22nd. In a telautographic apparatus, a unison device consisting of a magnet at the receiving station, electrical connections with the transmitting station whereby the same can be operated at the will of the transmitting operator, and mechanism connecting the armature of said magnet and the receiving pen, whereby when the said armature is caused to move the receiving pen is moved thereby to unison position, substantially as set forth. 23rd. In a telautographic apparatus a unison mechanism consisting of a magnet, electrical connections with the transmitting station whereby the magnet may be operated at the will of the transmitting operator, and mechanism connecting the armature of said magnet with each of the two pen drums of the receiving pen, whereby when the said magnet is caused to operate the receiving pen is drawn to the position of unison, substantially as set forth. 24th. In a telautograph, the combination of a paper shifting magnet and connections whereby it may be operated from the transmitting station, and mechanical connections between the armature of the paper shifting magnet and the receiving pen, whereby the receiving pen is brought to unison with the transmitting pen upon the shifting of the paper, substantially as set forth. 25th. In a telautograph, the combination of circuit makers and breakers controlling local batteries at the receiver, mechanism for locking said makers and breakers in an open position, and a magnet controlling said mechanism to lock said circuits open when the transmitting pen is out of use, substantially as set forth. 26th. The combination of a telautographic receiving pen, power mechanism for driving the same, a spring placed under tension by the power mechanism, through which spring the power is transmitted to the receiving pen, an escapement for regulating the application of the power of the spring to the receiving pen, and means for disconnecting the power mechanism from the spring when the tension of the latter is normal, substantially as set forth. 27th. The combination of a spring, a motor or other source of power for maintaining the tension of the motor upon the spring when the tension of the latter is normal, and a receiving pen connected with and driven by the power of the spring, substantially as set forth. 28th. The combination of a spring of power mechanism for giving tension thereto, means for suspending the operation of the power mechanism upon the spring when its tension reaches the normal amount, means for re-establishing the operation of the power mechanism upon the spring when the tension of the spring falls below its normal amount, and a receiving pen driven by the power of the spring, substantially as set forth.

No. 51,660. Telautograph. (Telautographe.)

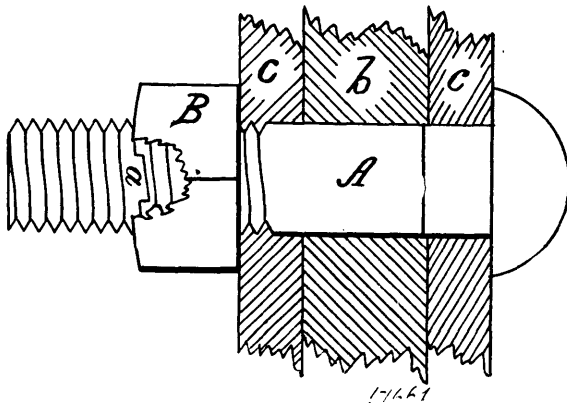


Elisha Gray, Highland Park, Illinois, U.S.A., 16th March, 1896; 6 years. (Filed 25th May, 1895.)

Claim.—1st. The combination in a telautograph of a power mechanism, a torsional spring, and means for maintaining constant the tension of the spring, a reversing mechanism and a receiving pen, substantially as set forth. 2nd. The combination of a telautographic receiving pen power mechanism for driving the same, a spring placed under torsional tension by the power mechanism through which spring the power is transmitted to the receiving pen, and means for suspending the operation of the power mechanism upon the spring when the latter has been placed under sufficient tension, substantially as set forth. 3rd. The combination of a telautographic receiving pen, power mechanism for driving the same, a spring placed under torsional tension by the power mechanism through which spring the power is transmitted to the receiving pen, and a circuit maker and breaker for suspending the operation of the power mechanism upon the spring when the latter has been placed under sufficient tension, substantially as set forth. 4th. The combination of a telautographic receiving pen, power mechanism for driving the same, a spring placed under torsional tension by the power mechanism through which spring the power is transmitted to the receiving pen, and a reversing mechanism between the spring and the receiving pen, substantially as set forth. 5th. The combination of a spring, power mechanism for giving torsional tension thereto, means for suspending the operation of the power mechanism upon the spring when its tension reaches the normal amount, means for re-establishing the operation of the power mechanism upon the spring when the tension of the spring falls below its normal amount, and a receiving pen driven by the power of the spring, substantially as set forth. 6th. The combination of a telautographic receiving pen, a shaft from which said pen is driven, means for rotating said shaft, a spring put under torsional tension, by the rotation of the shaft and serving by means of its tension, to drive the receiving pen and a reversing mechanism, substantially as set forth. 7th. The combination of a telautographic receiving pen, a shaft from which the said pen is driven, means for rotating said shaft, a coiled spring put under tension by the rotation of the shaft and serving by means of its tension to drive the receiving pen and a reversing mechanism, substantially as set forth. 8th. The combination of a telautographic receiving pen, a shaft or sleeve from which said pen is driven, means for rotating said shaft, a coiled spring axially placed with reference to the shaft, and put under tension by the rotation of the shaft and serving by means of its tension to drive the receiving pen and a reversing mechanism, substantially as set forth. 9th. The combination of a power mechanism, a shaft connected therewith by gearing, so as to be rotated thereby, a spring put under torsional tension by said shaft, a reversing mechanism and a receiving pen driven by the tension of the spring, substantially as set forth. 10th. The combination of a power mechanism, a shaft connected therewith by gearing, so as to be rotated thereby, a spring put under torsional tension by said shaft, a reversing mechanism and a receiving pen driven by the tension of the spring, substantially as set forth. 11th. The combination of a power mechanism, a shaft connected therewith, so as to be rotated thereby, a spring put under torsional tension by said shaft and mounted with its axis of torsion in the line of said shaft, a reversing mechanism, and a receiving pen by the tension of the spring, substantially as set forth. 12th. The combination of a power mechanism, a shaft connected therewith so as to be rotated thereby, a spring put under torsional tension by said shaft, a receiving pen driven by the tension of the spring, and means for keeping the tension of the spring substantially constant, substantially as set forth. 13th. The combination of a power mechanism, a shaft connected therewith by gearing so as to be rotated thereby, a spring put under torsional tension by said shaft, a receiving pen driven by the tension of the spring, and an electrical make and break for suspending the operation of the power mechanism upon the spring when the tension thereof reaches the normal, and for re-establishing said operation when said tension falls below the normal, substantially as set forth. 14th. The combination of a power mechanism, an equalizing gear, two springs connected with the equalizing gear, placed under tension by the power mechanism, and a receiving pen driven in its two directions, of motion by the power of the two springs respectively, substantially as set forth. 15th. The combination of a power mechanism, an equalizing gear, two springs connected with the equalizing gear and placed under tension by the power mechanism, two reversing mechanisms and a receiving pen driven in its two directions of motion by the power of the two springs, respectively, substantially as set forth. 16th. The combination of a power mechanism, an equalizing gear, two springs connected with the equalizing gear and placed under tension by the power mechanism, two reversing mechanisms, means for maintaining the tension upon the said springs constant, and a receiving pen driven in its two directions of motion by the power of the two springs respectively, substantially as set forth. 17th. The combination of a power mechanism, an equalizing gear, two springs connected with the equalizing gear and placed under tension by the power mechanism, two reversing mechanisms, means for suspending the operation of the power mechanism upon each of said springs when the tension upon said springs becomes normal, means for re-establishing the operation of the power mechanism upon said springs when their tension falls below normal, two reversing mechanisms, and a receiving pen driven in its two directions of motion by the power of the two springs respectively, substantially as set forth. 18th. The combination of a power mechanism, an equalizing gear, two shafts rotated by the motor through the equalizing gear, two torsional springs

having their axes of torsion respectively in line with the shafts and put under tension by the power mechanism, and a receiving pen driven in its two directions of motion by the force of said two springs, substantially as set forth. 19th. The combination of a power mechanism, an equalizing gear, two shafts rotated by the power mechanism through the equalizing gear, two torsional springs having their axes of torsion respectively in line with the said shafts, and put under tension by the power mechanism, means for maintaining the tension of said springs substantially constant, and a receiving pen driven in its two directions of motion by the power of said two springs, substantially as set forth. 20th. The combination of a receiving pen, a shaft from which the receiving pen is driven, two clutches on said shaft for causing the receiving pen to be driven in opposite directions, a stationary magnet or magnets, connections between said magnets and the said two clutches and electrical connections from the transmitting station whereby one or the other of said clutches is brought into operation through the said magnet or magnets according to the direction of motion of the transmitting pen substantially as set forth. 21st. The combination of a receiving pen, a shaft from which the receiving pen is driven, two clutches on said shaft for causing the receiving pen to be driven in opposite directions, stationary magnets, two armature levers for said magnets respectively, springs operating upon said two armature levers to cause them to act upon the two clutches respectively, and electrical connections with the transmitting station whereby through said magnets one or the other of said clutches is brought into operation, according to the direction of movement of the transmitting pen, substantially as set forth. 22nd. The combination of a power mechanism, a shaft connected therewith by gearing so as to be rotated thereby, a spring put under torsional tension by such shaft, a reversing mechanism, a receiving pen driven by the tension of the spring, and an escapement controlling the application of the power to the receiving pen, substantially as set forth.

No. 51,661. Nut Lock. (Arrête-écrou.)



William Halletts, Truro, Nova Scotia, Canada, 16th March, 1896; 6 years. (Filed 8th July, 1895.)

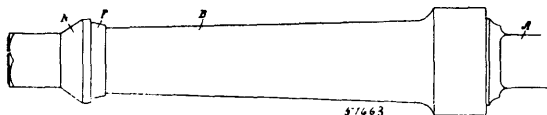
Claim.—A nut lock comprising an ordinary bolt, and a nut having one or more notches *n*, on its outer face into which a set punch is placed and the thread of the bolt within one or more of the notches is bent from its true position, substantially as and for the purpose hereinbefore set forth.

No. 51,662. Gun Powder. (Poudre.)

Edward Dickson, Oak Lake, Manitoba, Canada, 16th March, 1896; 6 years. (Filed 10th August, 1895.)

Claim.—A compound composed of barium nitrate, wheat flour, ferro cyanide of potassium, picric acid, chlorate of potash, liquid ammonia and lampblack, substantially in the proportions given, coated with coal oil which has been treated first with nitric acid, then with sulphuric acid and lastly with ammonia, for the purpose set forth.

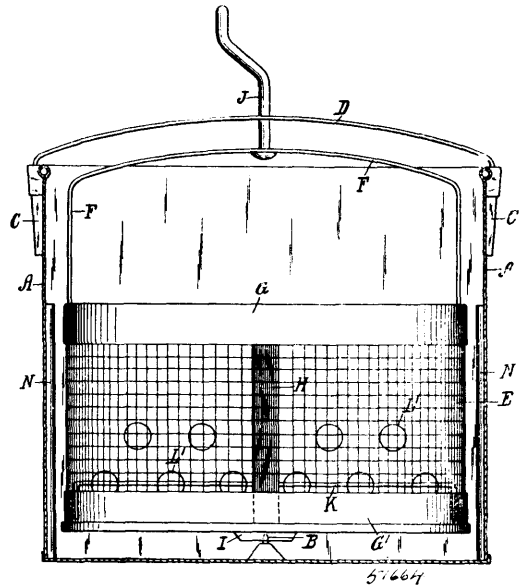
No. 51,663. Axle Nut. (Écrou d'essieu.)



David Spicer, Exter, Ontario, Canada, 16th March, 1896; 6 years (Filed 12th August, 1895.)

Claim.—1st. A nut *N*, in which the chamber *D*, is formed, substantially as and for the purpose set forth. 2nd. A nut *N*, in which the chamber *D*, is formed, in combination with the removable rings or slips *R*, substantially as and for the purpose set forth.

No. 51,664. Dish Washer. (Machine à laver la vaisselle.)



Chas. Allen, Woodstock, Ontario, Canada, 16th March, 1896; 6 years. (Filed 3rd September, 1895.)

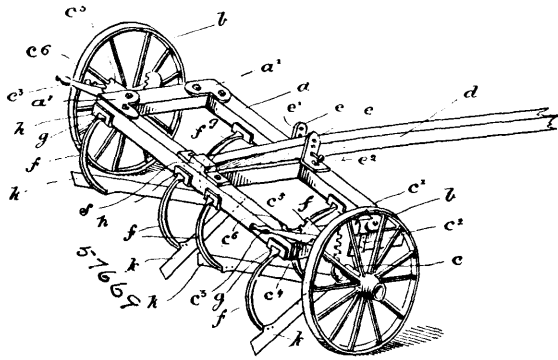
Claim.—1st. In a dish washer, the reticulated dish holder *E*, in combination with a partition *L*, in which the openings *L*¹, are formed, substantially as and for the purpose set forth. 2nd. In a dish washer, the reticulated dish holder *E*, in combination with the cross-bars *K*, *K*, substantially as and for the purpose set forth. 3rd. In a dish washer, the reticulated dish holder *E*, in combination with a partition *L*, in which the openings *L*¹ are formed, and the cross bars *K*, *K*, substantially as and for the purpose set forth. 4th. In a dish washer, the reticulated dish holder *E*, in combination with the frame *F*, substantially as and for the purpose set forth. 5th. In a dish washer, the reticulated dish holder *E*, in combination with the frame *F*, encircling strips *G*, *G*¹, and the bars *H*, *H*, substantially as and for the purpose set forth. 6th. In a dish washer, the reticulated dish holder *E*, the frame *F*, encircling strips *G*, *G*¹, and bars *H*, *H*, in combination with the partition *L*, in which the openings *L*¹ are formed, substantially as and for the purpose set forth. 7th. In a dish washer, the reticulated dish holder *E*, the frame *F*, encircling strips *G*, *G*¹, and bars *H*, *H*, in combination with the partition *L*, in which the openings *L*¹ are formed, and the cross bars *K*, *K*, substantially as and for the purpose set forth. 8th. In a dish washer, the reticulated dish holder *E*, the encircling strips *G*, *G*¹, the bars *H*, *H*, and frame *F*, in combination with the partition *L*, in which the openings *L*¹ are formed, and the cross bars *K*, *K*, substantially as and for the purpose set forth. 9th. The reservoir *A*, and bearing pin *B*, in combination, with a rotating dish holder *E*, formed of perforated sheet metal, or other suitable reticulated material, the socket plate *I*, the cross bars *K*, *K*, the frame *F*, the crank arm *J*, and means for supporting the latter, and the dish holder *E*, centrally in the reservoir *A*, substantially as and for the purpose set forth. 10th. The reservoir *A*, bearing pin *B*, pocket, *C*, *C*, and cross bar or bridge *D*, formed with the angular ends *D*¹ and with the opening *D*², in combination with a dish holder *E*, socket plate *I*, frame *F*, and crank arm *J*, substantially as and for the purpose set forth. 11th. The reservoir *A*, bearing pin *B*, and the deflectors *N*, in combination with a rotating reticulated dish holder *E*, socket plate *I*, frame *F*, crank arm *J*, and means for supporting the latter and the dish holder *E*, centrally in the reservoir *A*, substantially as and for the purpose set forth. 12th. The reservoir *A*, bearing pin *B*, and deflectors *N*, in combination with a rotating dish holder *E*, formed partly or altogether of woven wire, perforated sheet metal or other suitable reticulated material, socket plate *I*, frame *F*, partition *L*, cross bars *K*, *K*, crank arm *J*, and bridge *D* or its equivalent, substantially as and for the purpose set forth.

No. 51,665. Table for Finding Wages. (Barème.)

Charles Edgar Stewart, Woodstock, Ontario, Canada, 16th March, 1896; 6 years. (Filed 11th October, 1895.)

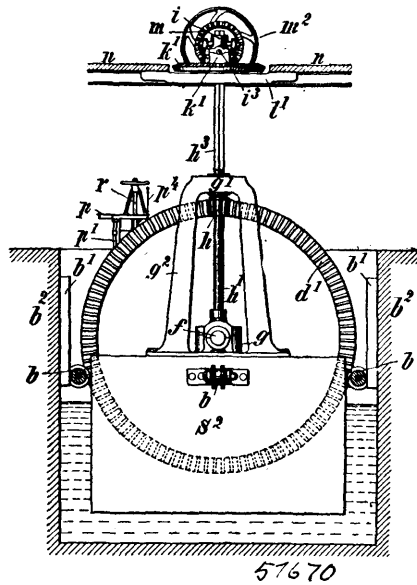
Claim.—1st. A wages finding table comprising a time column and a series of wages rates columns arranged according to pre-conceived amounts and a sliding time bar corresponding to the time column suitably held in guides and arranged to move laterally over the columns to a position adjacent to any desired column as and for the purpose specified. 2nd. The combination with the column arranged at the right hand side, the wages rates columns graduated and extending from left to right of such time column, the tabulated form being bounded by flanges, of a sliding time bar, outwardly extend-

hangers F F F, bolted with the grooved plates H H H, to the frame A, with the wheels B B, the axles C C, cogged plates C', crooked



plates C², C², lever C³, fulcrum C⁴, quadrant plate C⁵, lock bolt C⁶, substantially as and for the purpose above set forth.

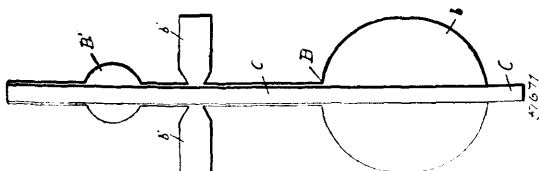
No. 51,670. Tidal Motor. (Roue d'eau.)



Johann Ferdinand Robert Knobloch, Hamburg, Emsbüttel, Germany, 16th March, 1896; 6 years. (Filed 4th December, 1895.)

Claim.—1st. In tidal motors, the combination of a water race or pit with two opposite sluice gates adapted to be moved and adjusted in vertical direction, and with a hydraulic or water-power engine capable of being raised or lowered, substantially as and for the purpose specified. 2nd. In tidal motors, the combination of a water race or pit, two opposite sluice gates, a water-power engine and a suitable gearing for transmitting the motion or power, substantially as described. 3rd. In tidal motors, the combination of a water race or pit, two opposite sluice gates, a water-power engine, a suitable motion transmitting gearing, and a float adapted to support or carry the said water-power engine, substantially as set forth. 4th. In tidal motors, the combination of a water race or pit, two opposite sluice gates, a water-power engine carried by a suitable float, a motion transmitting gearing, and adjustable connecting means for coupling and uncoupling the sluice gates with the said float, substantially as specified.

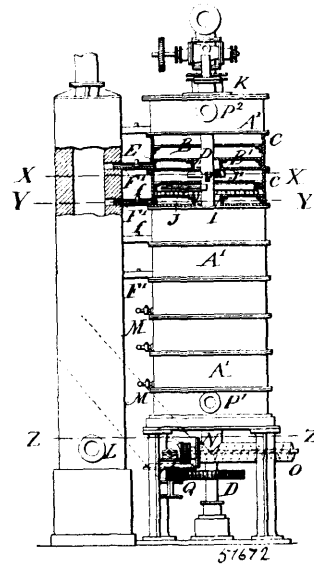
No. 51,671. Label for Bottles. (Etiquette pour bouteilles.,



Arthur Stockdale Jackson, Montreal, Quebec, Canada, 16th March 1896; 6 years. (Filed 5th December, 1895.)

Claim.—A label provided at its lower part with a disc or shield, and with a disc, and arms at its upper part, in combination with a strip of flexible material, secured behind the label and having a projecting end, substantially as set forth.

No. 51,672. Apparatus for Treating Solid and Pasty Substances with gases. (Appareil pour le traitement par le gaz de substances solides et pâteuses.)

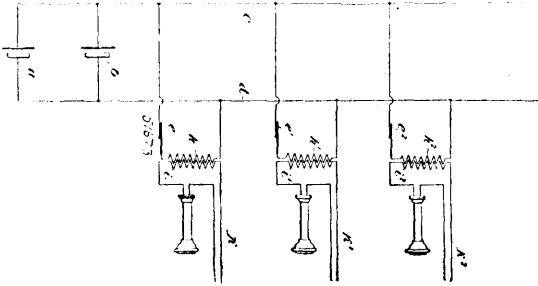


Ludwig Mond, 20th Avenue Road, Regents Park, England, 16th March, 1896; 6 years. (Filed 24th December, 1895.)

Claim.—1st. Apparatus for treating solid or pasty materials with gases, at high temperatures, consisting of an upright chamber divided by trays or partitions into a number of superposed compartments, arranged to communicate with each other, a heating chamber in each compartment that is made to communicate on one side of a partition therein with a combustion chamber for gaseous fuel arranged at the side of the apparatus so that each of the said heating chambers communicates directly therewith, a chimney flue with which each heating chamber is also made to communicate on the other side of the said partitions so that the hot combustion gases are made to pass through the combustion chamber through the heating chambers to the chimney flue, means for supplying the upper end of the apparatus with the solid material to be treated, and for discharging it at the lower end, a stirring device for causing the material to descend from one compartment of the apparatus to the next below, and means for passing the gas with which the material is to be treated in an upward direction through the apparatus substantially as described. 2nd. Apparatus for treating solid or pasty materials with gases at high temperatures consisting of an upright chamber divided by trays or partitions into a number of superposed compartments arranged to communicate with each other, a heating chamber in each of the upper compartments which chamber is made to communicate directly respectively with a combustion chamber for gaseous fuel arranged at the side of the apparatus and with a chimney flue, a cooling chamber in each of the lowermost compartments communicating with a cold water or air supply, means for supplying the upper end of the apparatus with the solid material to be treated, and for discharging it at the lower end, a stirring device for causing the material to descend from one compartment of the apparatus to the next below, and means for passing the gas with which the material is to be treated, in an upward direction through the apparatus, substantially as described. 3rd. In apparatus for treating solid or pasty materials with gases at high temperatures the combination with trays such as B B¹ dividing the apparatus into a number of superposed compartments through which the solid or pasty material to be treated is made to descend consecutively, of heating chambers such as E divided by partitions E¹, on one side of which the said chambers communicate with a combustion chamber such as G at the side of the said apparatus by means of flues F¹ while on the other side they communicate with a chimney flue H by flues F², whereby the hot combustion gases are made to circulate from the combustion chamber G through the heating chambers E on their way to the chimney, substantially as described. 4th. In apparatus for treating solid or pasty material with gases at high temperatures, the combination of a chamber A composed of superposed cylinder sections A¹ trays B B¹ dividing each such cylinder section into two compartments communicating with each other, a heating chamber E, below each tray B¹, divided by a partition E¹, a combustion chamber G, for gaseous fuel, extending up at the side of the chamber A, a chimney flue H, extending up at the side of the combustion chamber, but

having no direct communication therewith, flues F¹, on one side of the partition E¹, establishing a communication between the heating chambers E, and the combustion chamber G, flues F², on the other side of said partition establishing a communication between chambers E, and chimney flue H, means for supplying the solid or pasty material to be treated to the top of the chamber A, a stirring device for causing the material to descend from one compartment to another, and means for passing the gas with which the material is to be treated in an upward direction through the compartments of the chamber A, substantially as described.

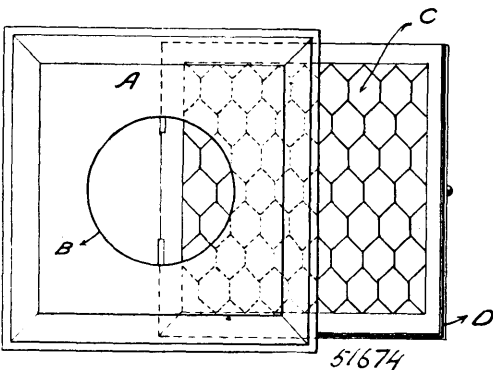
No. 51,673. Telephone Transmitter.
(*Transmetteur téléphonique.*)



John J. Carty, New York, State of New York, U.S.A., 16th March, 1896; 6 years. (Filed 30th August, 1894.)

Claim.—1st. The combination with a battery or other source of electricity, having very low internal resistance, of telephone transmitters connected in parallel between the poles of the battery, and deriving current therefrom, substantially as described. 2nd. The combination with a storage battery or secondary battery of low internal resistance, of telephone transmitters connected in parallel between its poles, and deriving current therefrom, substantially as described. 3rd. The combination with a battery or other source of electric current, having very low internal resistance, of several parallel branches between the poles of the battery, and a telephone transmitter and the primary helix of an induction coil in each branch substantially as described. 4th. In combination, a source of electric current of very low internal resistance, separate parallel branches joining the poles of the source of battery, a telephone transmitter and the primary helix of an induction coil included in series in each of the branches, and a telephone line circuit connected with a telephone receiver, including the secondary helix of each induction coil, substantially as described.

No. 51,674. Device to Prevent Dust Escaping from Hot Air Furnaces. (*Appareil pour empêcher la poussière d'échapper des calorifères à air.*)



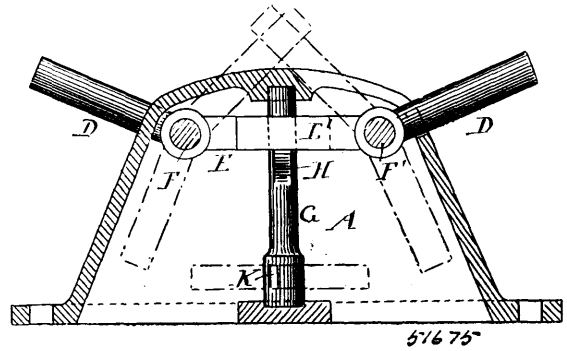
Aldé Doré, Buckingham, Quebec, Canada, 16th March, 1896; 6 years. (Filed 31st January, 1896.)

Claim.—1st. In a hot air furnace air inlet or outlet, a box having a double wire cloth frame slidingly inserted therein, and containing between the wire cloths a sheet of dust preventing substance, as shown and described for the purpose set forth. 2nd. In a hot air furnace air inlet or outlet, a box through which the air passes, provided with a sliding frame faced on both sides with wire gauze, and between which a dust arrester may be placed, as shown and described for the purpose set forth.

No. 51,675. Apparatus for the Fastening and Loosening of Ropes. (*Appareil pour attacher et détacher les amarres.*)

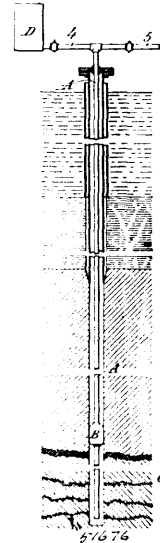
Axel Sabroe, Hadersleben, Germany, 16th March, 1896; 6 years. (Filed 30th March, 1894.)

Claim.—In a self releasing cleat, the combination of a casing, one or more movable pins pivoted therein, and means for causing



said pins to be drawn into said casing, substantially as shown and described.

No. 51,676. Method of Increasing the Flow of Oil Wells. (*Manière d'augmenter le rendement des puits d'huile.*)

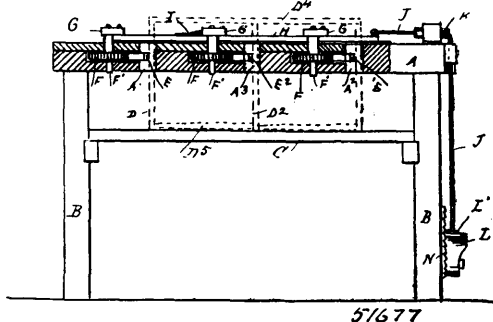


John Wesley Van Dyke and Herman Frasch, Lima, Ohio, U.S.A., 17th March, 1896; 6 years. (Filed 22nd January, 1896.)

Claim.—1st. The method of increasing the flow of oil wells in limestone formations, by introducing into the well a large quantity of a chemical reagent, such as sulphuric acid, which decomposes the rock without dissolving it, and allowing said reagent to act upon the wall of the well, substantially as described. 2nd. The method of increasing the flow of oil wells in limestone formations, by introducing into the well a large quantity of a chemical reagent, such as sulphuric acid, which decomposes the rock without dissolving it, and subjecting such reagent in the well to strong pressure, substantially as described. 3rd. The method of increasing the flow of oil wells in limestone formations, by introducing into the well a large quantity of a chemical reagent, such as sulphuric acid which decomposes the rock without dissolving the same, allowing said reagent to act upon the walls of the well, and also introducing a neutral or cheap liquid such as water into the well to force said reagent further into the rock, substantially as described. 4th. The method of increasing the flow of oil wells in limestone formations, by introducing into the well a large quantity of a chemical reagent, such as sulphuric acid, which decomposes the rock without dissolving it, then introducing into the well a neutral or cheap liquid such as water to force the said reagent further into the rock, and finally introducing a neutralizing liquid, substantially as described. 5th. The method of increasing the flow of oil wells in limestone formations, by introducing into the well a large quantity of a chemical reagent, such as sulphuric acid, which decomposes the rock without dissolving it, confining said reagent to the lower or oil-yielding portion of the well hole, and forcing it by pressure into the rock, substantially as described. 6th. The method of increasing the flow of oil wells in limestone formations, by introducing into the well a large quantity of a chemical reagent, such as sulphuric acid, which decomposes the rock without dissolving it,

forcing it by pressure into the rock, removing the pressure, and cleaning out the solid particles which are brought into the well hole, substantially as described. 7th. In increasing the flow of oil wells by chemical reaction, that improvement which consists in confining a liquid reagent without a packer to the lower (or oil-yielding) portion of the well by filling with oil the space above the desired level outside the reagent-introducing pipe, substantially as described.

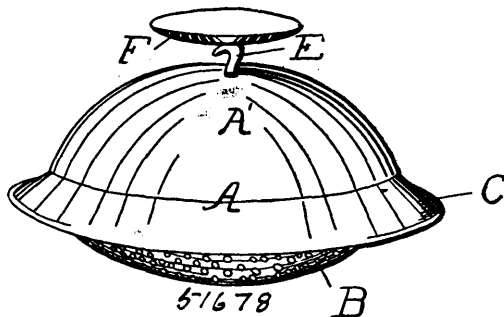
No. 51,677. Box Making Machine.
(Machine pour faire les boîtes.)



Abner Carey, Cairo, Illinois, U.S.A., 17th March, 1896; 6 years. (Filed 3rd February, 1896.)

Claim.—1st. A box making machine, comprising a top plate having transverse slots, and clamping bars held movably in the said top plate, to clamp the parts of the box in place, substantially as shown and described. 2nd. A box-making machine, comprising a top plate having transverse slots, clamping bars held movably in the said top plate, to clamp the parts of the box in place, and a table arranged below the said top plate, for supporting the lower ends of parts of the box previous to being clamped by the said clamping bars, substantially as shown and described. 3rd. A box-making machine, comprising a top plate having transverse slots, clamping bars held movably in the said top plate, to clamp the parts of the box in place, and means, substantially as described, for simultaneously moving the said clamping bars into and out of contact with the parts of the box to be held in position, as set forth.

No. 51,678. Tobacco Moistener.
(Machine pour humecter le tabac.)



Melchior Brazeau, Montreal, Quebec, Canada, 17th March, 1896; 6 years. (Filed 4th February, 1896.)

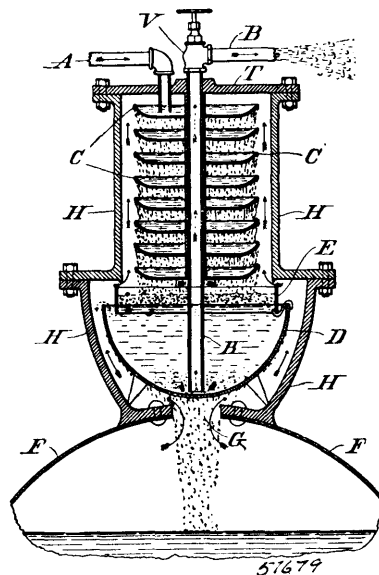
Claim.—1st. The herein described tobacco moistener consisting of the combination of the receptacle A, the moisture holding pad D, and the deflector C, all substantially as shown and described. 2nd. The herein described tobacco moistener consisting of the combination of the receptacle A, having the impervious upper portion and the perforated lower portion, and the movable deflector C above the latter, all substantially as shown and described. 3rd. The herein described tobacco moistener consisting of the combination of the receptacle A, from which the moisture is omitted and the removable deflector C, all substantially as shown and described. 4th. The herein described tobacco moistener, consisting of the combination of the receptacle A, from which the moisture is emitted, the hook E, and the plate F, all substantially as shown and described.

No. 51,679. Feed Water Heater and Purifier for Boilers.
(Réchauffeur et épurateur de l'eau d'alimentation.)

William B. Braucher and Arthur C. Braucher, both of Danville, Illinois, U.S.A., 17th March, 1896; 6 years. (Filed 6th February, 1896.)

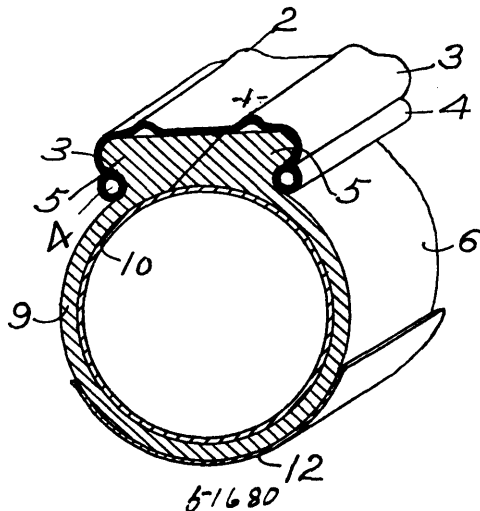
Claim.—1st. The combination, with a steam boiler, of a feed-water heating compartment seated upon the boiler and having a single

opening communicating with the steam space of the boiler and serving as a passage way for the steam from the boiler to the feed water heating compartment and for the water from the feed water compartment to the boiler, substantially as and for the purpose herein-



before set forth. 2nd. In a feed water heater, the combination, of a shell having a water inlet and a steam inlet, and a series of distributing pans centrally supported, substantially as and for the purpose hereinbefore set forth. 3rd. In a feed water heater, the combination, of a shell having a water inlet and a steam inlet, a series of distributing pans centrally supported, and a settling basin and scum collecting ring or skimmer below the pans to receive the water from them, a blow-off pipe projecting downward through and supporting the distributing pans and terminating just above the bottom of the settling basin, substantially as and for the purposes hereinbefore set forth. 4th. In a feed water heater, the combination of a shell having a water inlet in its upper end and a steam inlet and water outlet in its lower end, a settling basin in the lower end of the shell, a scum collecting ring in the basin, a blow-off pipe extending vertically downward through the shell and ring and terminating near the bottom of the basin, and a set of distributing pans mounted upon the blow-off pipe, substantially as and for the purpose hereinbefore set forth.

No. 51,680. Protection Tire or Cover for Pneumatic and other Elastic Tires.
(Bandage ou couvercle protecteur pour bandages pneumatiques et autres.)



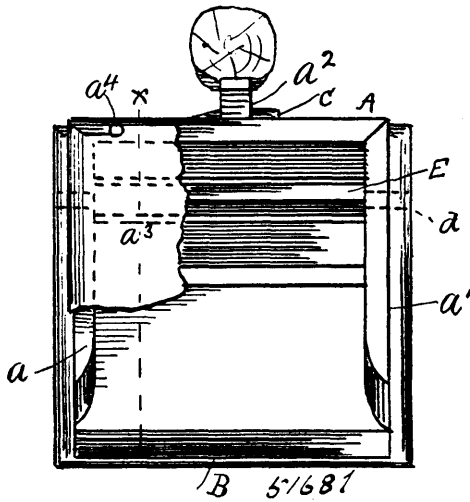
Friedrich Hermann Fischer, Colln, Saxony, Germany, 17th March, 1896; 6 years. (Filed 14th February, 1896.)

Claim.—1st. A bicycle tire comprising a wheel rim section made of sheet metal having ogee curved and tubular edged sides, and a covering tire section having a rim seat adapted to fit said wheel rim

section, substantially as described. 2nd. A bicycle tire comprising a sheet metal wheel rim section having inwardly turned sides or margins and a covering tire section having a rim seat adapted to fit said wheel rim section and divided in the middle by an oblique cut, the inclined overlapping edges serving to expand said rim seat, substantially as described. 3rd. A bicycle tire comprising a wheel rim section, a covering tire section and a protecting tire section formed of sheet metal or other suitable elastic imperforate material, substantially as described. 4th. A bicycle tire comprising a wheel rim section, a covering tire section and a protecting tire section formed of sheet metal or other suitable elastic material having a concave tread and sides concentric with the tire, substantially as described. 5th. A bicycle tire comprising a wheel rim section, a covering tire section reinforced or thickened at its outer circumference or tread and a protecting tire section adapted to receive said thickened covering tire section, substantially as described.

No 51,681. Device for feeding Salt to Stock.

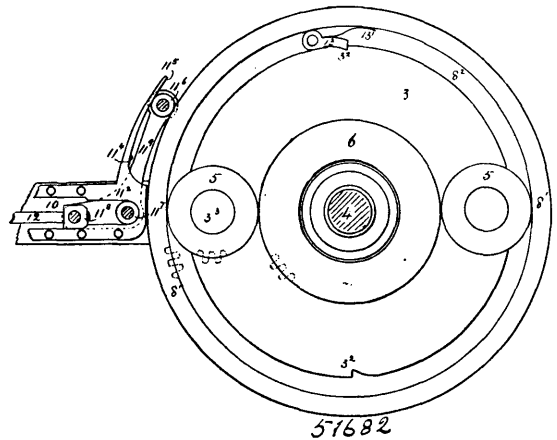
(Appareil d'alimentation du sel pour le bétail.)



William F. Lawler, Anderson, Indiana, U.S.A., 17th March, 1896; 6 years. (Filed 14th February, 1896.)

Claim.—1st. The herein-described improved stock-salter, comprising a hopper, a lick-trough pivotally secured thereto, means for normally holding said lick-trough against the bottom of said hopper and a pivoted cut-off located in said hopper and connected to said lick-trough, whereby said cut-off is operated by the depression of said lick-trough and caused to regulate the flow of material from said hopper, substantially as set forth. 2nd. The herein-described improved stock-salter, comprising a hopper, means for supporting the same, a lick-trough pivotally connected thereto, a spring for normally holding said lick-trough, against the bottom of said hopper, and a pivoted cut-off located in said hopper and having reduced ends connected to said lick-trough, whereby said cut-off is operated by the depression of said lick-trough and caused to regulate the flow of material from said hopper, substantially as set forth. 3rd. The herein-described improved stock salter, comprising the hopper, the cut-off pivotally mounted in the bottom of said hopper and having reduced ends passed through openings in the ends of said hopper, said cut-off being adapted to regulate the flow of material from said hopper the lick-trough pivotally mounted on the reduced ends of said bar and adapted to operate said cut-off, any means for normally holding said lick-trough against the bottom of said hopper, substantially as set forth. 4th. The herein-described stock-salter, comprising the hopper open at its bottom, the pivoted lick-trough normally bearing against the bottom of said hopper, the cut-off located in the bottom of said hopper and connected to the said lick-trough, whereby said bar will be partially turned by said lick-trough when the same is moved out of its normal position, said cut-off being adapted to regulate the flow, of material from said hopper, substantially as described. 5th. The herein described improved stock-salter, comprising the hopper open at its bottom, the pivoted lick-trough, the spring bearing thereon causing said lick trough to normally bear against the bottom of said hopper, the bar or cut-off located in the bottom of said hopper, and connected to said lick-trough, whereby said bar or cut-off will be partially turned by said lick-trough when the same is moved out of its normal position, said cut-off being adapted to regulate the flow of material from said hopper, substantially as set forth.

No. 51,682. Combined Driving Gear and Brake.
(Roue de commande et frein combinés.)

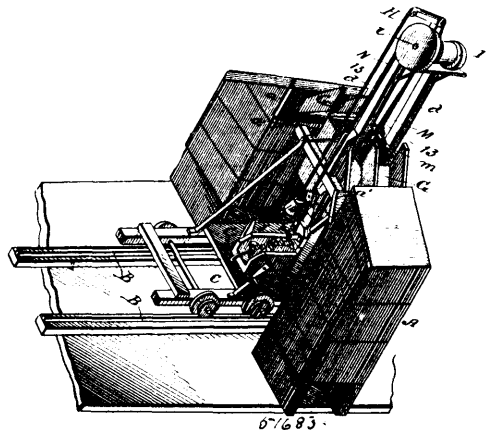


James T. Bustin, St. John, New Brunswick, Canada, 17th March, 1896; 6 years. (Filed 15th February, 1896.)

Claim.—1st. The combination of a driving-shaft, a sun-wheel attached to the driven machine-wheel, a planet-wheel revolvable on a bearing attached through a disc or arm to the driving-shaft, an internal gear revolvable about the driving-shaft as a centre, a frame with journal box fixed, relatively to the shaft and wheels, a brake attached to the frame and operating on the internal gear-wheel, all working together as shown and described. 2nd. The combination of a driving-shaft, a sun-wheel attached to the driven machine-wheel, planet-wheels revolvable on bearing attached through a disc or arms to the driving-shaft, an internal gear-wheel revolvable around the driving-shaft as centre, a frame with journal box fixed, relatively to the shaft and wheels, a brake attached to the frame and operating on the internal gear-wheel, all working together as shown and described. 3rd. The combination of a driving-shaft, a sun-wheel attached to the driven machine-wheel, a planet-wheel revolvable on a bearing attached through a disc or arm to the driving-shaft, an internal gear-wheel revolvable about the driving shaft as centre, a frame with journal box fixed, relatively to the shaft and wheels, a brake attached to the frame and operating on the internal gear-wheel, with a detent attached to the internal gear-wheel and operating on the shaft or some part attached thereto, as and for the purpose shown and described. 4th. The combination of a driving-shaft, a sun-wheel attached to the driven machine-wheel, a planet-wheel revolvable on a bearing attached through a disc or arm to the driving-shaft, an internal gear-wheel revolvable about the driving-shaft as a centre, a frame with journal box fixed, relatively to the shaft and wheels, a brake attached to the frame and operating on the internal gear-wheel, with a detent attached to the internal gear-wheel and operating on the shaft or some part attached thereto, as and for the purpose shown and described. 4th. The combination of a driving-shaft, a sun-wheel attached to the driven machine-wheel, a planet-wheel revolvable on a bearing attached through a disc or arm to the driving-shaft, an internal gear wheel revolvable around the driving shaft as centre, a frame with journal box fixed, relatively to the shaft and wheels, a brake attached to the frame, having a spring and with surface eccentric to the periphery of the internal gear-wheel, a brake roller playing between the periphery of the said wheel and said eccentric surface attached by a linkage to a lever or screw capable of moving it back and forth between said wheel and said eccentric surface, as and for the purpose shown and described.

No. 51,683. Hopper for Corn Elevators.

(Tremie pour élévateurs à ble-d'inde.)

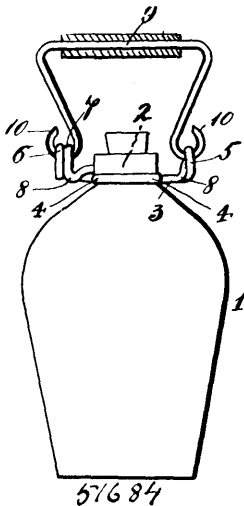


John W. Stone, Merrill, Iowa, U.S.A. 17th March, 1896; 6 years. (Filed 15th February, 1896.)

Claim.—1st. In a corn elevator, the combination of a vertically movable hopper for receiving the corn and depositing it in a crib, said hopper having an inclined bottom and a hinged gate, and a

post engaging said gate and holding the same closed, said post terminating at the height at which the contents of the hopper are to be discharged, substantially as described. 2nd. In a corn elevator, the combination of the vertically movable hopper, having its bottom formed of two inclined planes and at its sides provided with hinged gates and posts engaging said gates and holding the same closed, said posts terminating at the height at which the contents of the hopper are to be discharged. 3rd. The combination of the body of a hopper, having an inclined surface for directing the contents thereof toward the discharge openings, a gate for closing said discharge opening, means for holding said gate normally closed, and a spring tending to open said gate. 4th. In a corn elevator, the combination with the vertically movable hopper, having its bottom formed of two inclined planes and its sides provided with hinged gates, and a pivoted gate within said hopper, of posts engaging said first-mentioned gates and terminating at the height at which the contents of the hopper are to be discharged. 5th. A hopper having its bottom formed of a plurality of inclined planes, and its sides provided with hinged gates having projections extending from their inner surfaces, and a pivoted gate within said hopper, adapted to be adjusted into either vertical or inclined position, said gate resting upon one of said projections when inclined, and a spring tending to open said gate, substantially as described. 6th. A hopper having an inclined bottom, a hinged gate in its side provided at its hinged end with a projection having a curved surface, and a spring engaging said curved surface of the gate and serving to hold the gate open, substantially as described. 7th. In a corn elevator, the combination with a vertically movable hopper, having its bottom inclined and its side provided with a hinged gate, said gate having a curved projection at its hinged end, and a spring engaging the curved surface of the projection and serving to hold the gate open, of a post engaging gate and holding the same closed, said post terminating at the height at which the contents of the hopper are to be discharged, and a rope connected to said gate for closing the same when the hopper has unloaded its contents, substantially as described. 8th. In a corn elevator, the combination with a shaft two drums of different diameters mounted thereon, a cable engaging the smaller drum, and the elevating hopper secured to said cable of a third drum, a cable secured at its end to said larger and third drums, a gear wheel mounted upon the shaft of said third drum, a pinion meshed with said gear, operating cranks at the ends of the shaft of said pinion, and a pawl for engaging said pinion, substantially as described.

No. 51,684. Jug Bail. (Anse de jarre.)



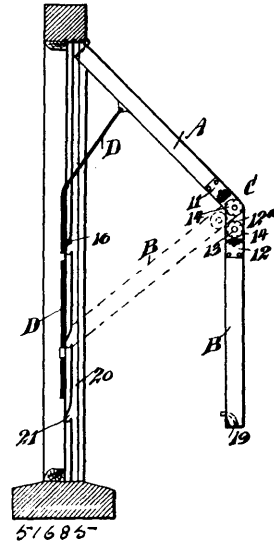
Albert Patrick Woodward, Little Rock, Arkansas, U.S.A., 17th March, 1896; 6 years. (Filed 17th February, 1896.)

Claim.—1st. As a new article of manufacture, a jug-holder collar adapted to be clamped around a jug or the like and having its ends provided with correlative contiguous hooks adapted to be locked by a bail, substantially as specified. 2nd. As a new article of manufacture, a jug-holder collar adapted to be clamped around a jug or the like and having its ends provided with parallel hooks adapted to receive a bail hook and provided at a point removed from the hooks with bail-securing mechanism, substantially as specified. 3rd. In a jug-holder, the combination with a collar provided with correlative terminal hooks, and latching mechanism, of a bail provided with a hook adapted to be passed through the correlative hooks of the collar, substantially as specified. 4th. In a jug-holder, the combination with a collar bent to form an intermediate eyelet, terminal

correlative hooks and a latch, of a bail provided with hooks adapted respectively to engage the eyelet and the correlative hooks of the collar, substantially as specified. 5th. The combination, with a jug or the like, of a collar bent to form an eyelet, terminal correlative hooks and a latch projection, and a bail provided with hooked ends secured to the eyelet and correlative hooks of the collar, substantially as specified.

No. 51,685. Awning Shutter or Blind.

(Abrivent ou contrevent.)

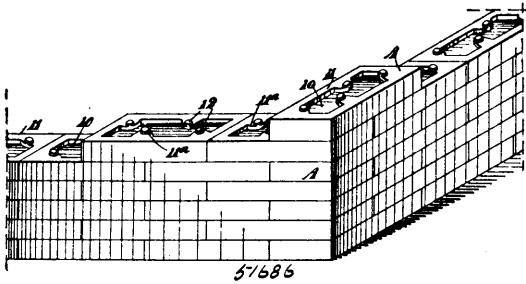


Andrew Schmitt, Brooklyn, New York, U.S.A., 17th March, 1896; 6 years. (Filed 17th February, 1896.)

Claim.—1st. An awning shutter constructed in sections, having adjacent rounded edges and link hinges connecting the same, one of said sections being provided with a locking device for locking it to the other section, substantially as set forth. 2nd. An awning shutter constructed in sections, link hinges connecting said sections, whereby one section may be passed over and beyond the other, and lock nuts located upon the pivots of one or more of the hinges, whereby the lower section of the shutter may be held in any desired position relative to the upper section, as and for the purpose set forth. 3rd. The combination, with a frame, of an awning, shutter or blind having a hinged connection with the frame, the said shutter or blind being constructed in sections, the abutting edges of the sections being rounded off, link hinges connecting the sections, the pivots of one or more of the hinges being provided with lock nuts whereby the hinges may be held rigid, means substantially as shown and described, for elevating the upper section of the shutter, and locking devices whereby both sections may be locked to the frame, as and for the purpose specified. 4th. The combination with a frame having grooves in the inner face of its uprights, and provided with sockets formed in one side wall of said grooves, of an awning shutter or blind hinged at the top to the frame, the said blind being constructed in sections, link hinges connecting the sections, whereby one section may be passed over the end of the other, and locking devices located upon the pivots of one or more of the hinges, bolts located upon the inner faces of both sections, the bolts of the lower section being adapted to enter the grooves in the frame and travel therein when necessary, and means substantially as described, for raising and lowering the sections of the shutter, as and for the purpose set forth. 5th. An awning shutter, constructed in sections having adjacent rounded edges, and link hinges connecting said sections pivotally together, substantially as set forth. 6th. An awning shutter constructed in sections, one of which has a hinged connection with the frame and is provided with means whereby it may be adjusted and locked to the frame, the other section being pivotally connected to the first named section and having means for locking it in position relatively thereto, substantially as set forth. 7th. An awning shutter constructed in sections, one of which has a hinged connection with the frame, the other section being hinged at one end to the first named section, and having means for locking it fast thereto, the other end of said last named section being provided with means for holding it to the window frame, substantially as set forth. 8th. An awning shutter constructed in sections hinged together, each section being provided with means whereby it may be adjusted and locked to the frame independently of the other section, substantially as set forth. 9th. An awning shutter constructed in sections hinged together and provided with means for locking said sections together

each section being provided with means whereby it may be adjusted and locked to the frame independently of the other section, substantially as set forth.

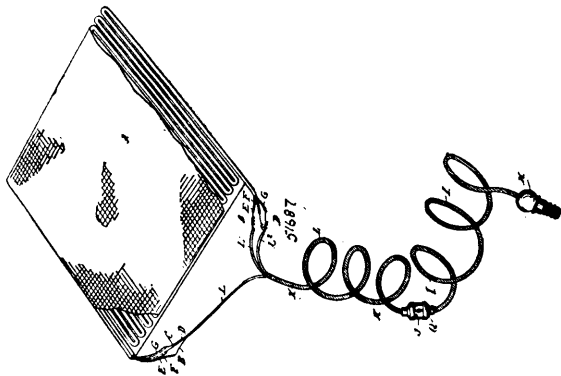
No. 51,686. Building Brick. (Brique.)



Oscar Kleinberger, St. Louis, Missouri, U.S.A., 17th March, 1896; 6 years. (Filed 17th February, 1896.)

Claim.—1st. A brick having its upper and lower surfaces provided with recesses and projections or nipples extending outwardly from the bottom of the said recesses, substantially as described. 2nd. A brick having its upper and lower surfaces recessed within marginal lines, and projections or nipples extending outwardly from the bottoms of the recesses beyond the plane of the marginal portion of the brick, substantially as described. 3rd. A brick having its upper and lower surfaces provided with recesses, and projections or nipples extending outwardly from the bottoms of the said recesses, the nipples being in parallel diagonal or oblique lines, whereby two bricks may be so placed together that the nipples of one brick will be arranged in lines oppositely inclined to those of the other brick, and in longitudinal alignment with the nipples of said other brick so that the bricks will interlock, substantially as described.

No. 51,687. Switch for Electric Heaters. (Commutateur pour chauffeur électrique.)

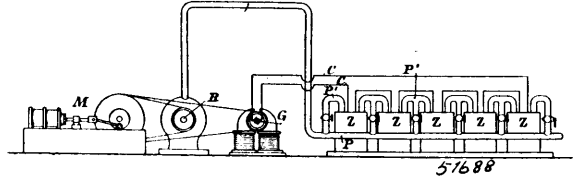


The H. W. Johns Manufacturing Company, assignee of John Emory Meek, both of New York, State of New York, U.S.A., 17th March, 1896; 6 years. (Filed 13th September, 1895.)

Claim.—1st. The combination in an electric heater of two or more continuous and separately insulated conductors, embodied within and extending throughout the heater, an induction current conveyor which connects with them all and a plurality of eduction current conveyors, one of which at one end connects with one of said conductors and the other or others with more than one, and at the other end with a switch constructed and arranged to make and break circuit with one or more of said current conveyors, as desired, for the purposes set forth. 2nd. The combination in a switch for electrical apparatus of a movable make and break circuit device having the following contact surfaces, two laterally projecting pins in different longitudinal planes one of them made in form of a cam, so as to continue contact with its contact spring during at least a quarter revolution of the switch, thus constituting in effect, a third contact point and two or more stationary contact surfaces, said devices being so arranged relative to each other, that upon rotation of the switch different circuits will be closed or opened as desired, for the purposes set forth. 3rd. The combination in an electric heater of two or more continuous and separately insulated conductors, which are embodied within and extend throughout the heater, an induction current conveyor which connects with them all, and a plurality of eduction current conveyors, one of which at one end connects with one of the said conductors and the other or others with more than one, and at the other end with separately insulated, stationary contact points in a switch, and a movable make and break circuit device in the switch having projecting contact points located in different longitudinal planes, and one of them made in the form of

a cam, for the purposes set forth. 4th. The combination in an electric heater of two or more continuous and separately insulated conductors woven into the fabric of the heater and extending throughout substantially its entire area, and induction and eduction current conveyors, for the purposes set forth. 5th. The combination in an electric heater of two or more continuous and separately insulated conductors of different current carrying capacities woven into the fabric of the heater, and extending throughout substantially its entire area, and induction and eduction current conveyors, for the purposes set forth. 6th. The combination in an electric heater of two or more continuous and separately insulated conductors, some of them being single wires, and some double or looped and all of them connected with the induction wire at one end and engaging directly or indirectly with the switch at the other end, for the purposes set forth.

No. 51,688. Process for the Electrolytic Production of Zinc. (Procédé pour la production électrolytique du zinc.)



The firm of Siemens and Holske, assignee of Robert Encke, and Oscar Frolich, all of Berlin, Germany, 17th March, 1896; 18 years. (Filed 5th August, 1895.)

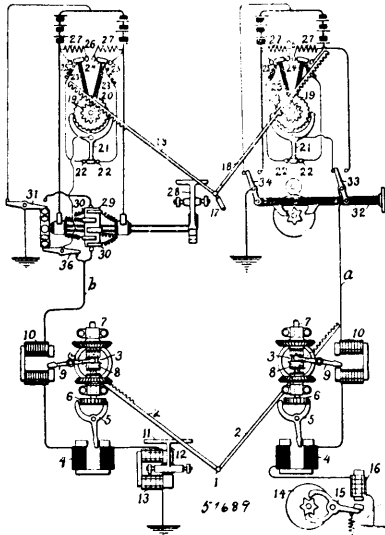
Claim.—1st. The improved process for the electrolytic production of zinc, consisting in subjecting more or less purified zinc solution to electrolysis while at the same time the electrolyte is caused by means of compressed air or other suitable means to circulate at so high a speed as to prevent the formation of zinc sponge, substantially as described. 2nd. The improved process for obtaining zinc by electrolysis consisting in first roasting the zinc ore, then lixiviating the same preferably by means of sulphuric acid, and after separation therefrom of the greater part of the impurities by known means, subjecting the same to electrolytic action by means of zinc cathodes, and anodes of carbon lead or other bodies not readily attacked by oxygen, while at the same time air under pressure is forced in at the lower part of the cells so as to produce a rapid circulation of the electrolyte, substantially as and for the purpose described. 3rd. The improved process for obtaining zinc by electrolytic action, consisting in first freeing a zinc solution as much as possible from other metals by known means, then bringing the same to a concentration of about 10° Bé then with a degree of acidity of about 5 to 10 grammes free sulphuric acid per litre of the solution subjecting the same to electrolytic action, while at the same time air under pressure is forced in at the lower part of the cells in the proportion of 1.3 about cubic metres of air per hour for electro plates of about 1 metre length and 0.7 metre width and a current density of about 50 ampères to the square metre, substantially as and for the purpose described. 4th. The use for effecting the electrolytic production of zinc, of apparatus consisting of the combination of a suitable source of electric energy connected with the electrodes of an electrolytic cell or battery of cells, means for producing air under pressure, and pipes or channels so arranged as to lead such air under pressure to near the bottom of the cell or cells where the pipes are provided with apertures through which the compressed air issues into the electrolyte, substantially as and for the purpose described. 5th. The combination with electrolytic cells for the production of zinc, of partitions such as H, of neutral material reaching from near the surface of the liquid in the cell to near the bottom of the vat, so as to form separate compartments, such as K, in the cell, and pipes P¹, P², passing down to near the lower edge of the said partitions and provided at their horizontal part P² with perforations for the issue of air under pressure, substantially as described. 6th. In the improved process for the avoidance of zinc sponge in the electrolysis of zinc, the production of the requisite degree of acidity by electrolysis of the lye, without simultaneous regeneration by zinc oxide, instead of the direct addition of free acid, substantially as described.

No. 51,689. Writing Telegraph. (Télégraphe imprimant.)

Thomas Ewing, jr., Yonkers, assignee of James Hart Robertson, Brooklyn, both of New York, U.S.A., 17th March, 1896; 6 years. (Filed 6th July, 1895.)

Claim.—1st. In a two-wire writing-telegraph system the combination of a suitable receiver mechanism at a receiving station, two line wires joining the stations, and at the transmitting station means for transmitting currents which control the movements of the receiver-pen in extent and direction, and means for transmitting currents which effect the lifting and lowering of the receiver-pen, and means for transmitting currents to shift the paper at the receiving station, substantially as described. 2nd. In a two-wire writing-telegraph system, the combination of a suitable receiver mechanism at the receiving station, including means for controlling the movements of the receiver-pen in extent and direction, and a supple-

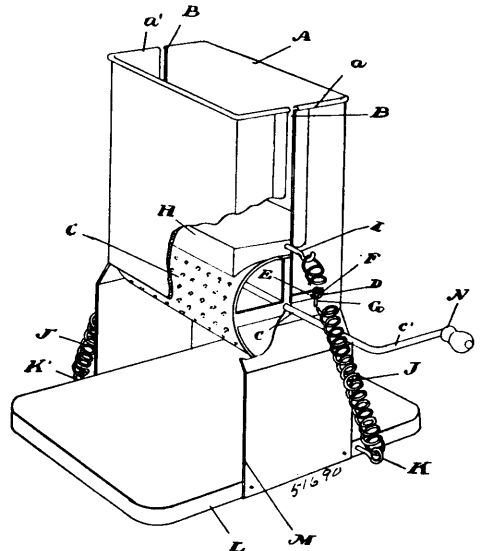
mental part to effect a fundamental telautographic operation, two line wires joining the two stations, and the stations, and at the transmitting station means for transmitting currents which effect the movements of the receiver-pen in extent and direction, and means



for transmitting currents which effect the operation of the supplemental part of the receiver mechanism, both positive and negative currents being transmitted, and means for preventing short circuits in transmission of the different currents, substantially as described. 3rd. In a two-wire writing-telegraph system the combination at a receiving station of a suitable mechanism for controlling the movements of the receiver-pen, both in extent and direction, and a polarized pen-lifting and pen-lowering mechanism, two line wires joining the two stations, and at the transmitting station means for transmitting currents which control the movements of the receiver-pen in extent and direction, means for transmitting both positive and negative currents which effect the lifting and lowering of the receiver-pen, and means for preventing short circuits in the transmission of these various currents, substantially as described. 4th. In a two-wire writing-telegraph system the combination of a suitable receiver mechanism at a receiving station, including means for controlling the movements of the receiver-pen in extent and direction, and a supplemental part, two line wires joining the two stations, and at the transmitting station means for transmitting currents which effects the movements of the receiver-pen in extent and direction, and means for transmitting stronger currents which effect the operation of the supplemental part of the receiving mechanism, substantially as described. 5th. In a two-wire writing-telegraph system the combination of a suitable receiver mechanism at a receiving station, two line wires joining the stations, and at the transmitting stations means for transmitting currents which control the movements of the receiver-pen in extent and direction and means for transmitting currents which effect the lifting and lowering of the receiver-pen, and means for transmitting currents which control the paper shifting at the receiving station, the currents which lift and lower the pen and shift the paper being stronger than the other currents, substantially as described. 6th. In a writing-telegraph system the combination of a line wire which connects the transmitting and receiving stations, and to which is connected, at the transmitting station, one-half of a transmitter for sending over the line currents to control the movements of the receiver-pen in extent and direction, and a commutator for closing the line around and cutting out the said half-transmitter to send other currents over the line, and at the receiving station one-half of a receiver and a supplemental part operated only by the currents sent to line when the line at the transmitting station is closed around the said half-transmitter and it is thereby cut out, substantially as described. 7th. In a writing-telegraph system the combination of a line wire joining a transmitting and a receiving station, at the latter a suitable receiver mechanism, including a pen, and at the transmitting station two branches to the line, switches operated by movements of the transmitter-pen for sending to the line two distinct sets of currents, including both positive and negative currents, to accomplish at the receiving station the moving of the pen horizontally and the lowering and lifting of the pen respectively, each set of currents traversing its own branch, and means for preventing the simultaneous closing of the two branches, substantially as described. 8th. In a writing-telegraph system, a transmitter, a branch to line which includes a pulsator and a switch, a second branch to line which includes a switch which is independent of the pulsator and switch in the other branch, and means for preventing the simultaneous closure of the two branches, the said switches and pulsator being operated by the transmitter-pen, sub-

stantially as described. 9th. In a writing-telegraph system, at the transmitting station a transmitter, with a branch to line which includes a pulsator and a switch operated by the horizontal movements of the transmitter-pen, a second branch to line which includes a switch which is independent of the horizontal movements of the transmitter-pen and is operated by the vertical movements of the transmitter-pen, and means for preventing the simultaneous closure of the two branches, and at the receiving station a receiver with pen-moving and direction controlling mechanism for causing the receiver-pen to follow the horizontal movements of the transmitter-pen, and pen-lifting and pen-lowering mechanism for causing the receiver-pen to follow the vertical movements of the transmitter-pen, substantially as described.

No. 51,690. Grating Machine. (Râpe pour légumes.)



Reuben J. Panabaker, Preston, Ontario, Canada, 17th March, 1896; 6 years. (Filed 18th February, 1896.)

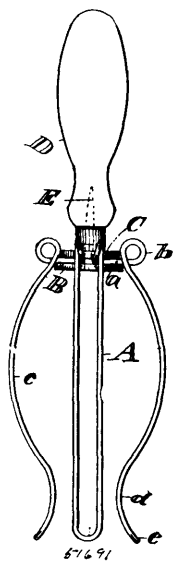
Claim.—1st. A grating machine consisting of a magazine, a revolvable grater within the magazine a movable top located within the magazine above the cylindrical grater, and means for revolving the helical grater, substantially as specified. 2nd. A grating machine consisting of a magazine, two vertical slots, one in each of two opposite sides, a cylindrical grater, the spindle of which is journaled in the said slots, one end of the spindle extending beyond its adjacent side and cranked, a vertically moveable top within the magazine, a pin projecting through each of said slots into its respective adjacent side of the said top, and two springs, one connected to each of said pins and to the base, substantially as specified. 3rd. A grating machine consisting of a magazine, two vertical slots, one in each of two opposite sides, a cylindrical grater, the spindle of which is journaled in the said slots, one end of the spindle extending beyond its adjacent side and cranked, a vertically moveable top within the magazine, a pin projecting through each of said slots into its respective adjacent side of the said top, two springs, one connected to each of said pins and to the base, and two bars, one end of each pivoted to the outer face of each of said opposite sides, the other end temporarily locked to its respective side, said bars adapted to bear on the top of the spindle of the cylindrical grater, substantially as specified. 4th. A grating machine consisting of a magazine, two vertical slots, one in each of two opposite sides, a cylindrical grater, the spindle of which is journaled in the said slots, one end of the spindle extending beyond its adjacent side and cranked, a vertically moveable top within the magazine, a pin projecting through each of said slots into its respective adjacent side of the said top, two springs, one connected to each of said pins and to the base, two bars, one end of each pivoted to the outer face of each of said opposite sides, the other end temporarily locked to its respective side, said bars adapted to bear on the top of the spindle of the cylindrical grater, a base, and standards connected to said base and supporting the magazine, substantially as specified.

No. 51,691. Globe Cleaner for Incandescent Electric Lights. (Nettoyeur de globe de lampe électrique incandescente.)

Henry Eummelen, Vancouver, British Columbia, Canada, 17th March, 1896; 6 years. (Filed 20th February, 1896.)

Claim.—1st. In incandescent electric light globe cleaners, the combination of fingers, formed into shape as shown, and securely

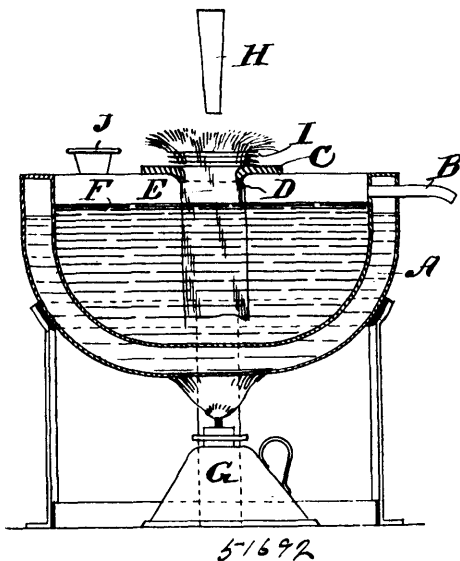
fastened to the circular plate, a second circular plate fixed adjacent thereto, and a handle, the whole being securely fastened together by a screw passing through the said plates into the handle, substan-



tially as and for the purposes hereinbefore set forth. 2nd. In incandescent electric light globe cleaners, the combination of the spring steel wire fingers A, encircled by the tubing f, the circular plates B and C, mounted on and securely fastened to the handle D by means of the screw E, substantially as and for the purpose hereinbefore set forth.

No. 51,692. Means for Removing Paraffin, etc.

(Moyen d'enlever la paraffine, etc.)



Joseph Samuel Beeman, Riversdale Road, Camberwell, Victoria, 17th March, 1896; 6 years. (Filed 20th February, 1896.)

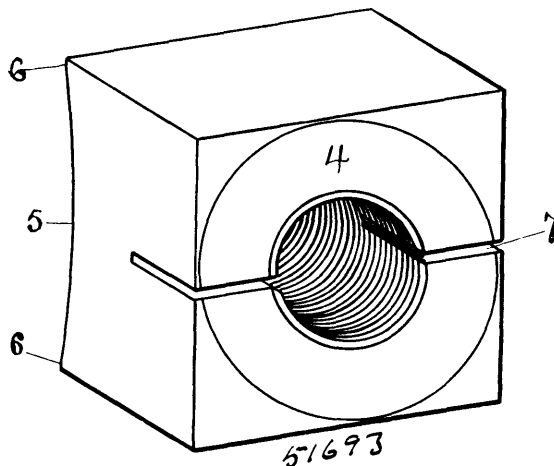
Claim.—In combination a heated receptacle or bath as A, a heated absorber as E, and heated connections between A, and E.

No. 51,693. Self-Locking Nut.

(Contre-écrou automatique)

Thomas Lindsley Henderson, Birmingham, Alabama, U.S.A., 17th March, 1896; 6 years. (Filed 20th February, 1896.)

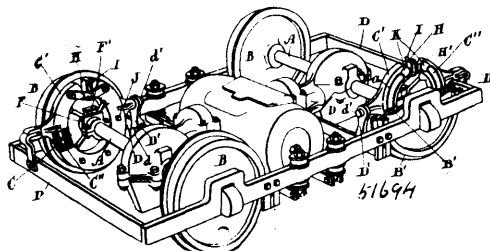
Claim.—In a self locking nut, the combination with a nut of a concave formed transversely in the back thereof forming two raised



edges on opposite sides of the nut back, a slot formed in the face of the nut, the slot in the same transverse line as the concave, substantially as and for the purpose hereinbefore set forth.

No. 51,694. Brake for Revolving Machinery.

(Frein pour machine tournante.)



The General Electric Company, Schenectady, New York, assignee of Elmer Ambrose Sperry, Cleveland, Ohio, both in the U.S.A., 18th March, 1296; 6 years. (Filed 8th September, 1894.)

Claim.—1st. In a brake for revolving machinery, a revolving part, a brake magnet, independent means for the entire support of the the brake magnet in combination with means mounted upon the revolving part co-operating with the face opposite the working face of the magnet for guiding the magnet. 2nd. In a brake for revolving machinery, a revolving part, a brake magnet, independent means for the entire support of the brake magnet, and means mounted upon the revolving part co-operating with a face opposite the working face of the magnet for guiding the magnet in one plane, leaving the same free in another. 3rd. In a brake for revolving machinery, a revolving part, a brake magnet, independent means for the entire support of the brake magnet, and means mounted upon the revolving part co-operating with a face opposite the working face of the magnet for guiding the magnet horizontally and leaving the same free vertically. 4th. In a brake for revolving machinery, a revolving axle, a brake magnet encircling such axle with its aperture larger than the axle, in combination with means independent of the axle so encircled for the entire support of the brake magnet consisting in part of a yielding medium, and means for guiding the magnet with reference to said revolving part. 5th. In a brake for arresting motion, a brake magnet of circular form presenting a lateral wearing face, supports for the magnet attached one on either side of the centre of the circle of said magnet and above the centre of gravity of the mass as a whole, substantially for the purpose specified. 6th. In a brake for revolving machinery, a revolving part, a brake magnet presenting a wearing face upon one side, means for the support of the brake magnet independent of the revolving element, and abutments from the other side of the magnet approaching the revolving part for guiding the magnet, and a wearing plate or portion between the guide and the abutments. 7th. In a brake for revolving machinery, a revolving part, a brake magnet presenting a wearing face upon one side, means for the support of the brake magnet independent of the revolving element, abutments from the other side, of the magnet approaching the revolving part, means mounted upon the revolving part for guiding the magnet, and a wearing plate or portion between the guide and the abutments. 8th. In a brake for revolving machinery, a revolving part, an independently supported brake magnet, means mounted upon the revolving part for guiding the magnet, and a separable wearing plate or portion between the guide and the magnet. 9th. In a brake for revolving machinery, a revolving part, an independently supported brake magnet, means mounted upon the revolving part for guiding the magnet, and a separable wearing plate or portion between the guide and the magnet consisting of two

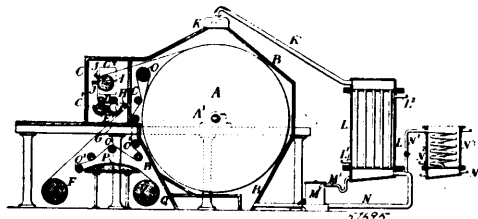
parts, and a lubricant containing cavity in one or more of such parts. 10th. In a brake for arresting motion, an electro-magnet crescent shaped in a line or plane practically at right angles to that of the part of the magnetic circuit through such magnet, a co-operating revolving portion of magnetic material, the gap in the crescent being well defined, and substantially as specified. 11th. In a brake for revolving machinery, a revolving part, an axle attached thereto, a crescent-shaped brake-magnet, the gap in the crescent being wider than the axle and means whereby the magnet may be attached to and removed from the revolving part by slipping laterally with reference to the axle, the axle passing through the gap. 12th. In a brake for arresting motion, a crescent-shaped brake-magnet, a part presenting a co-operating face, in combination with a lubricator in the gap of the crescent for a lubrication of such face. 13th. In a brake for arresting motion, a crescent-shaped brake-magnet, a part presenting a co-operating face, in combination with a lubricator in the gap of the crescent for a lubrication of such face, and means for feeding a lubricant. 14th. In a brake for arresting motion, a lubricator for the brake consisting in a part provided with a cavity, a dry lubricant within the cavity, and means for feeding the lubricant. 15th. In a brake for arresting motion, a crescent shaped magnet, a groove sunk in one of its faces, the groove leading into the gap of the crescent from both ends of the magnet, a removable piece for such gap, and a magnetizing coil in the groove. 16th. In a brake for arresting motion, a crescent-shaped magnet, a groove sunk within one of its faces, a core filling a portion only of the groove, and a magnetizing coil surrounding the core. 17th. The brake reel consisting of two halves each having a dovetailed projection and co-operating groove parallel with its axis and adapted to be slipped together longitudinally and held in place, as and for the purpose seth forth. 18th. In a brake for arresting motion, a crescent-shaped magnet, a groove sunk within one of its faces, a core dividing the groove into two recesses, and an energizing coil, portions of which are in each recess. 19th. In a brake for arresting motion, a crescent-shaped magnet, a groove sunk in one of the faces of the magnet, an energizing coil in said groove, a moving part presenting a co-operating face, the gap in the crescent being practically at a right angle to the line of the motion of the moving part, and substantially for the purpose specified. 20th. In a brake for arresting motion, a crescent-shaped magnet, a groove sunk within one of its faces, a core dividing the groove into two recesses, the said core being larger toward its outer face whereby the recesses are contracted at this point, and an energizing coil, portions of which are within each recess. 21st. In a brake for cars, a car axle, a revolving part mounted thereon, a brake magnet co-operating therewith, a groove within the brake magnet, a magnetizing coil in the groove smaller than the groove, and an insulating sulphur like filling poured into the groove while in a liquid state, said filling being of such material as to become hard and form ample support and insulation for the coil, substantially for the purpose specified. 22nd. In a brake for cars, a car axle, a revolving part mounted thereon, a brake magnet co-operating therewith, a groove within the brake magnet, a magnetizing coil in the groove smaller than the groove and a filling consisting of sulphur or sulphur-like material poured into the groove while in a liquid state, said filling becoming hard and forming ample support and insulation for the coil, substantially for the purpose specified. 23rd. In a brake magnet, a groove, a coil within the groove smaller than the groove, a filling for the body of the groove, and a separate filling for the mouth of same consisting of denser material. 24th. In a brake magnet, a coil, two terminals therefor, one connected to the body of the brake magnet and the other free, the former being brought to the surface and re-embedded in the body of the magnet, substantially for the purpose specified. 25th. In a brake magnet, a coil, two terminals therefor, one connected to the body of the brake magnet, and the other free, the former being brought to the surface, held by a clamp, and re-embedded in the body of the magnet substantially for the purpose specified. 26th. In a brake, a coil, two terminals therefor brought out to the surface and there held by a clamp to the body of the magnet, in combination with a length of free wire either side of the said clamp, substantially for the purpose specified. 27th. In a brake magnet, a coil, two terminals therefor, an insulating bushing through which they are brought to the surface, a clamp for the terminals, and a length of free wire between the terminal and the clamp. 28th. In a brake magnet, a coil, two terminals therefor, one connected to the body of the brake magnet and the other free, the former being brought to the surface and re-embedded in the body of the magnet, a screw for holding said embedded wire, and a counterbore for the outer end of said screw.

No. 51,695. Apparatus for Making Fabrics Impregnated with Celluloid, or Varnish, or the Like. (*Appareil pour faire des tissus saturés de cellulose ou vernis, etc.*)

The Publishing, Advertising and Trading Syndicate, London, assignee of Alexander Gray, Mansion, Frognaal, Hampstead, both in England, 18th March, 1896; 6 years. (Filed 11th June, 1895.)

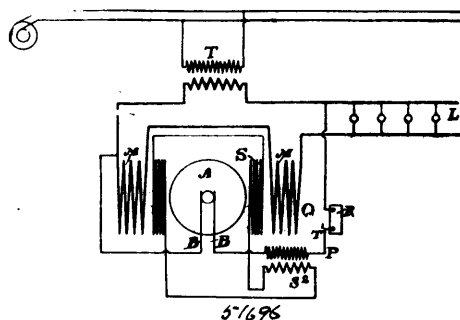
Claim.—1st. The combination with machinery for impregnating or coating fabrics with celluloid solution or with varnish or the like, of an air tight casing inclosing such machinery and fitted with window through which the working of the machinery can be observed and with door for giving access to the machinery, a heated

drying chamber into which the casing opens so that all vapours arising in the air tight casing pass into this chamber, mechanism for conveying the coated or impregnated fabric through such drying chamber, a fan or other form of air pump drawing air and vapour,



from the drying chamber, a condenser to which the air and vapour are delivered by the fan, and a return passage from the exit from the condenser to the drying chamber to convey back to it the air and uncondensed vapour which passes from the condenser. 2nd. The combination with machinery for impregnating or coating fabric with celluloid, solution or with varnish or the like, of a casing inclosing such machinery, a heated drying chamber into which the casing opens, mechanism for conveying the coated or impregnated fabric through such drying chamber, a fan or other form of air pump drawing air vapour from the drying chamber, a condenser to which the air and vapour are delivered by the fan, a return passage from the exit from the condenser back to the drying chamber, and another small passage and second condenser through which a small portion of air can be allowed to pass away to the open air. 3rd. The combination with machinery for impregnating or coating fabrics with celluloid solution or with varnish or the like of a casing inclosing such machinery, a drying chamber into which the casing opens, a revolving steam heated drum on the circumference of which the coated fabric is carried through the drying chamber, a fair or other form of air pump drawing air and vapor from the drying chamber, a condenser to which the air and vapour are delivered by the fan, and a return passage from the condenser to the drying chamber to convey back to it the air and uncondensed vapor which passes from the condenser.

No. 51,696. Electric Meter. (*Electrometre.*)



The Canadian General Electric Company, Toronto, Ontario, Canada, assignee of Elihu Thomson, Swampscott, Massachusetts, U.S.A., 18th March, 1896; 6 years. (Filed 20th March, 1895.)

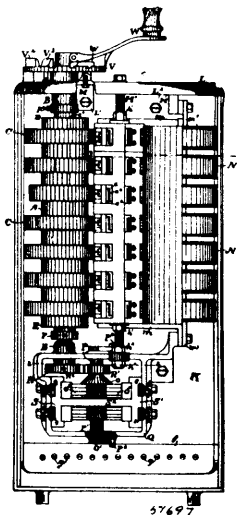
Claim.—1st. The method of energizing an initial or starting field for an electric meter, which consists in feeding a coil adapted to provide such a field by induction from an armature circuit in shunt to the mains supplying the current to be measured. 2nd. In an electric meter and in combination, a coil in series with the mains, an armature in shunt to such mains, and a starting coil supplied with current by transformation from the armature circuit. 3rd. In an electric meter and in combination, a coil in series with the mains, an armature in shunt to such mains, a resistance in series with the armature, and a starting coil supplied with current by transformation from the armature circuit. 4th. In an electric meter and in combination, a coil in series with the mains, an armature, a shunt circuit supplying the armature, a transformer having its primary in the shunt circuit, a resistance in series with the shunt circuit, and a starting coil in series with the secondary of the transformer.

No. 51,697. Controller for Electric Motors. (*Contrôleur pour moteurs électriques.*)

The Canadian General Electric Company, Toronto, Ontario, Canada, assignee of Joseph H. Jenkins, Schenectady, New York, U.S.A., 18th March, 1896; 6 years. (Filed 23rd July, 1895.)

Claim.—1st. A controller for electric motors comprising an actuating shaft or spindle mounted in suitable bearings, a circuit modifying device carried by said shaft, and means for removing such device from the shaft, without removing the shaft from its bearings, as set forth. 2nd. A controller for electric motors, comprising a

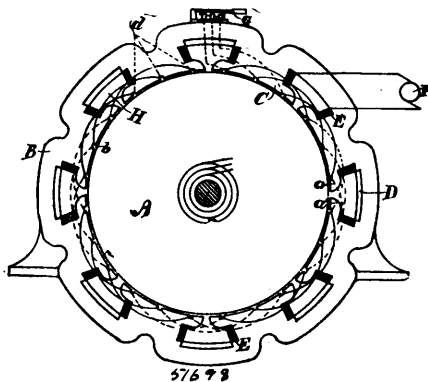
set of fixed contracts, a cylinder carrying contacts adapted to engage said fixed contacts, an inclosing case for said parts, an actuating shaft or spindle having a bearing in said case, and means for attaching said cylinder to or detaching it from said shaft at will, as set



forth. 3rd. In a controller for electric motors having a current-controlling cylinder and a reversing cylinder, a gear comprising a disc concentric with the current-controlling cylinder, teeth cut in a portion of the periphery thereof, a second disc concentric with the reversing cylinder, teeth cut on the periphery thereof corresponding to and adapted to mesh with the teeth on the first disc, and concave portions on the periphery of said second disc adjacent to the teeth therein and shaped to engage with and conform to the uncut portion of the periphery of the first disc, as and for the purpose set forth. 4th. In a controller for electric motors comprising a set of fixed contacts and a set of movable contacts, an electro-magnet or series of electro-magnets comprising a bobbin or bobbins wound on a core consisting of a series of T-shaped pieces, the top portions of said pieces forming the core proper upon which the bobbins are wound, and the stems thereof extending outwardly between the said bobbins toward the contacts and forming pole-pieces, as and for the purpose set forth. 5th. The herein described core for an electric-magnet or series of electro-magnets, comprising a flat strip of metal, and a series of T-shaped pieces of metal having their top portions screwed or otherwise fastened to said strip, so that the stems of the T's project therefrom at right angles. 6th. A controller for electric motors comprising a shaft or spindle and means for rotating the same, a permanent bearing therefor, a second shaft or spindle in line therewith having a separate bearing, gearing carried by said second shaft and adapted to operate a reversing switch, a circuit-controlling switch cylinder, and means for connecting said cylinder to said shafts, substantially as described. 7th. In a controller for electric motors, a circuit-controlling switch-cylinder mounted on a shaft having a flattened portion at each end extending beyond the ends of the cylinder, supplementary shafts having permanent bearings in the casing or framework of the controller, slots in said supplementary shafts in which the flattened ends of the cylinder shaft are adapted to fit, and the slotted collars surrounding said supplementary shafts, as and for the purpose set forth. 8th. In a controller for electric motors comprising controlling and reversing switch cylinders, substantially as described, an actuator therefor, consisting of a socket adapted to fit the shaft which carries the cylinder, and a handle hinged to or pivoted on said socket, in combination with a rack or guide extending through the path of said handle, and a series of notches therein adapted to engage and retain said handle at certain predetermined positions, as set forth. 9th. In a controller for electric motors, the combination with a hinged or pivoted operating handle, of a rack or guide adapted to be engaged thereby during the movement thereof, notches in said guide adapted to retain said handle, and bevelled projections between the notches, as and for the purpose set forth. 10th. A detachable actuator for a controller, comprising a socket provided with a lever or handle and adapted to fit the spindle of the switch-cylinder, a flange upon said socket, a projection attached to a fixed portion of the controller, such as the inclosing case, and adapted to engage said flange, and a slot in said flange through which said projection can pass, as and for the purpose described. 11th. In a controller for electric motors, locking devices comprising a cap or flange integral with or fastened to the controller shaft or spindle, a pin spring-pressed against said flange, and a hole or perforation in the flange adapted to come opposite said pin and be engaged thereby at a predetermined position of the spindle, as and for the purpose set

forth. 12th. A detachable operating-device and lock for an electric controller, comprising a flange or collar surrounding the controller shaft or spindle, a perforation therein, a spring-actuated pin or detent engaging with said perforation when the spindle is in a predetermined position, a socket provided with an actuating handle adapted to fit the end of said spindle and engage with said flange, and a projection on said socket adapted to engage the said perforation and displace the spring-actuated pin, thus unlocking the spindle substantially as and for the purpose described. 13th. A detachable operating-device and lock for an electric controller, comprising a flange or collar surrounding the controller shaft or spindle, a perforation therein, a spring-actuated pin or detent engaging with said perforation when the spindle is in a predetermined position, a socket provided with an actuating handle and adapted to fit the end of said spindle and engage with said flange, and a projection on said socket adapted to engage the said perforation and displace the spring-actuated pin in combination with a slotted flange integral with the said socket, and a fixed projection engaging said flange, as and for the purpose set forth.

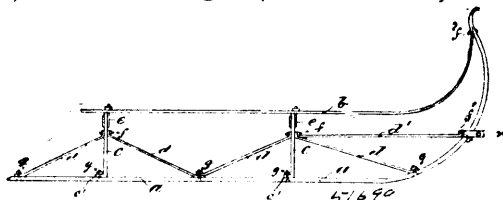
No. 51,698. Multiphase Current Motor.
(*Moteur à courant multiphase.*)



The Canadian General Electric Company, Toronto, Ontario, Canada, assignee of Louis Bell, Chicago, Illinois, U.S.A., 18th March, 1896; 6 years. (Filed 27th May, 1895.)

Claim.—1st. In an electric motor the combination of a member having a multiphase winding, a second member in intimate magnetic relation to the first, such second member having a winding by which direct currents are passed around the poles and substantially surrounding the first member and so disposed as to produce a practically continuous line of poles around the member upon which it is situated, and a closed-circuited winding also disposed in the pole faces so as to produce a continuous polarity substantially surrounding the first member, substantially as described. 2nd. In an electric motor, the combination of an armature having a multiphase winding and a field-magnet having a winding by which continuous current is passed around the field magnet poles and a closed-circuited winding, the closed-circuited winding being located in channels or grooves in the field-magnet adjacent to the armature and so arranged as to form substantially a ring of poles around the armature as set forth. 3rd. In an electric motor, the combination of an armature having a multiphase winding with a field-magnet having a row of poles with expanded faces practically surrounding the armature, a winding by which a continuous current is passed around the field-magnet poles upon such poles, and a closed-circuited winding arranged in grooves or channels in the pole faces, as set out. 4th. In an electric motor, a field-magnet having a row of poles forming substantially a continuous ring, a winding thereon by which continuous current is passed around the field magnet poles, an independent closed-circuited winding in grooves in the pole faces, and a switch adapted to open or close such closed-circuited winding. 5th. In an electric motor, a field-magnet or member having a row of poles with expanded faces nearly but not quite touching one another, a winding thereon by which continuous current is passed around the field-magnet poles and having channels in the pole faces and one or more closed-circuited windings disposed in such channels and insulated from the pole faces, such closed-circuited winding arranged to form a substantially continuous line of poles around the field-magnet.

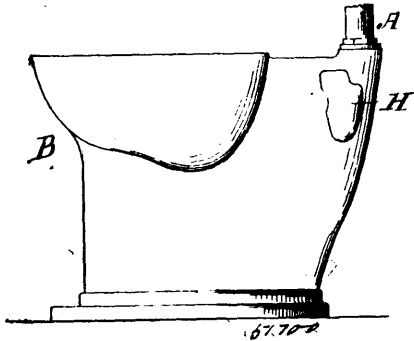
No. 51,699. Steel Sleigh. (*Traîneau en acier.*)



Robert Hill, Portage la Prairie, Manitoba, Canada, 18th March, 1896; 6 years. (Filed 22nd February, 1896.)

Claim.—1st. The bench *c*, on flat steel bent edgewise and having footings *c*¹, bolted to the runners *a*. 2nd. The combination of the bench *c*, with the runners *a*, and braces *d*, *d*¹ bolted together, substantially as and for the purpose set forth. 3rd. The combination of the bench *c*, with the runners *a*, and braces *d*, *d*¹, with bolster holder *i*, and circle *h*, secured to said bench, substantially as and for the purpose set forth.

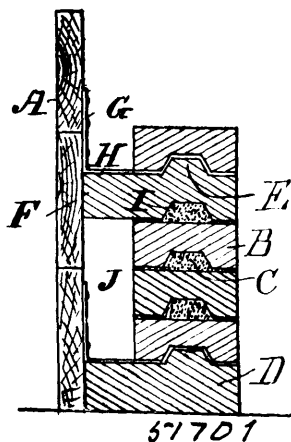
No. 51,700. Water Closet. (Laitrine à l'eau.)



John H. Hamilton, Detroit, Michigan, U.S.A., 18th March, 1896; 6 years. (Filed 24th February, 1896.)

Claim.—1st. In a water closet of the kind described, the combination of the bowl, an auxiliary water receptacle in the exit pipe from the bowl having a weir to form a normally open passage above the water level, a partition extending into said receptacle to form a trap having an opening above the passage over the water level, and a water jet discharging into the exit pipe of the bowl, substantially as described. 2nd. In a water closet, the combination of the bowl having a siphon trap beneath the bowl, and connecting with the discharge pipe, a water chamber formed beneath the bowl, having its overflow located slightly below the bottom of the bowl, a wall depending from the bowl into the chamber, an aperture in the wall above the water level, a water supply pipe, a connection from said pipe to the bowl, and to the top of the discharge passage beside the bowl and a trap in said last named passage, substantially as described. 3rd. In a water closet of the kind described, the combination of the bowl, a discharge pipe from the bowl connecting to the soil pipe, an auxiliary water receptacle in the discharge pipe, a restricted normally open passage connecting the vacuum forming chamber in the discharge pipe with the soil pipe at or near the water level, and a water jet discharging into the discharge pipe of the bowl, substantially as described. 4th. A siphon water closet, the outlet of which is sealed by means of a trap and provided with apertures through the partition, separating the longer leg of the siphon from the discharge pipe, whereby said trap becomes untrapped after the flushing ceases. 5th. In a water closet of the kind described, the combination of the bowl, an auxiliary water receptacle in the exit pipe from the bowl having a weir to form a normally open passage above the trap having an opening above the passage over the water level, and a water jet discharging into the exit pipe of the bowl.

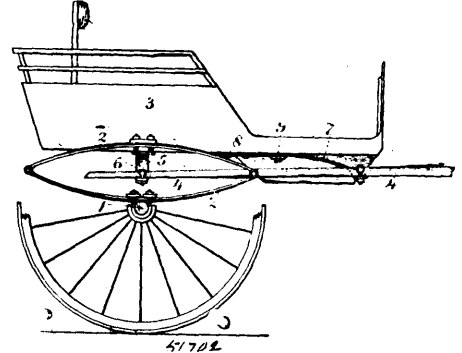
No. 51,701. Brick Veneer. (Brique de plaçage.)



George S. Balsley, Detroit, Michigan, U.S.A., 18th March, 1896; 6 years. (Filed 24th February, 1896.)

Claim.—1st. The combination with the wall of a building, of a veneer wall therefor, bricks in said veneer wall having projections on one surface, bricks adjacent to said bricks having recesses registering with said projections and ties for said veneer wall having portions lying in said recesses between the projections and the walls of the recesses, substantially as described. 2nd. The combination with the wall of a building and a brick veneer wall thereon, having bricks with interlocking portions on their upper and lower faces, of a tie adapted to hold the veneer free from the building, consisting of a metallic strap having a vertical securing portion and a horizontal locking or stay portion passing between the interlocking bricks and engaging the interlocking portions of the brick, substantially as described. 3rd. The combination with the wall of a building, of a brick veneer comprising the bricks D arranged at intervals having the lugs E on one face, and the bricks B provided with the sockets C in which the lugs are adapted to engage, and ties engaging the lugs passing between the bricks and adapted to be secured to the wall of the building, the parts combined as and for the purpose described.

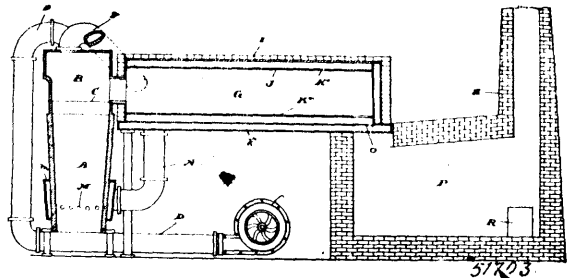
No. 51,702. Road Cart. (Désobligeante.)



Edward Hemming, Toronto, Ontario, Canada, 18th March, 1896; 6 years. (Filed 25th February, 1896.)

Claim.—1st. In a road cart, the lateral springs secured by their rear end to the cart box and by their front end adjustably clipped to the shafts and curved downward and outward to permit of free vibration, substantially as shown and described. 2nd. In a road cart, the combination of a pair of lateral springs secured to the cart box by one end and by their opposite and free end secured adjustably to the shafts, and the transverse spring coupling the rear ends of the shafts together and by its centre secured to the cart box, substantially as shown and described.

No. 51,703. Furnace for Smelting, etc., Ores and Mattes. (Fournaise pour la fusion des minerais, etc.)

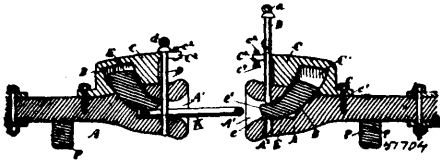


James A. McArthur, Copper Cliff, Ontario, Canada, 18th March, 1896; 6 years. (Filed 20th December, 1895.)

Claim.—1st. In a furnace for smelting and refining sulphide ores and mattes, the combination with the blast furnace, a dust chamber leading from the head of the blast furnace, an internal jacket for the dust chamber, a series of air ducts or passages in the internal jacket, the blower, a connection between the air passages and the blower, the tuyeres, and a connection between the air passages and tuyeres, substantially as specified. 2nd. In a furnace for smelting and refining sulphide ores and mattes, the combination with the furnace, a dome for the furnace head, divided into two compartments in connection with each other, a dust chamber leading from the furnace head to the chimney, an internal jacket within the dust chamber, consisting of a series of air passages in connection with each other, and in connection with one of the compartments of the dome, the blower, a connection between the blower and the other compartment of the dome, the tuyeres, and a connection between the air passages and the tuyeres, substantially as specified. 3rd. In a furnace for smelting and refining sulphide ores and mattes, the combination with the furnace, a dome for the furnace head, divided into two compartments in connection with each other, a dust chamber leading from the furnace head to the chimney, an internal jacket within the dust chamber, consisting of a series of air pass-

ages in connection with each other, and in connection with one of the compartments of the dome, the blower, a connection between the blower and the other compartment of the dome, the tuyeres, a wind bustle surrounding the tuyeres, a connection between the air passages and the wind bustle, substantially as specified.

No. 51,704. Car Coupler. (Attelage de chars.)



John Myron Gifford, Cayuga, Ontario, Canada, 19th March, 1896; 6 years. (Filed 26th February, 1896.)

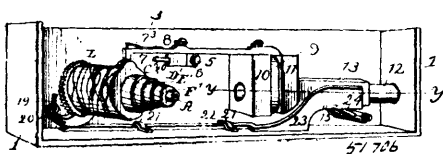
Claim.—1st. In a car coupler, the combination with the draw-head provided with the ordinary mouth and pin-hole, and a coupling-pin of an arc-shaped passage-way extending back of the pin-hole from the mouth through the upper portion of the draw-head and an arc-shaped block B, provided with a flat front upper end and arc-shaped front lower portion, as and for the purpose specified. 2nd. In a car-coupler, the combination with the draw-head provided with the ordinary mouth and pin-hole, and a coupling-pin, of an arc-shaped passage-way extending back of the pin-hole from the mouth through the upper portion of the draw-head, an arc-shaped block B, provided with a flat front upper end and arc-shaped front lower portion and a cap secured to the top of the draw-head and provided with a recess forming a continuation of the arc-shaped passage-way, as and for the purpose specified. 3rd. In a car-coupler, the combination with the draw-head provided with the ordinary mouth and pin-hole and a coupling-pin, of an arc-shaped passage-way extending back of the pin-hole from the mouth through the upper portion of the draw-head, an arc-shaped block B provided with a flat front upper end and arc-shaped front lower portion and a cap having guiding jaws for the coupling-pin immediately above the pin-hole, as and for the purpose specified. 4th. In a car coupler, the combination with the draw-head provided with the ordinary mouth and pin-hole and a coupling-pin of an arc-shaped passage-way extending back of the pin-hole from the mouth through the upper portion of the draw-head, an arc-shaped block B provided with a flat front upper end and arc-shaped front lower portion, a cap having guiding jaws for the coupling-pin immediately above the pin-hole, and an L-shaped staple fitting into holes in the ends of the guiding jaws, as and for the purpose specified. 5th. In a car-coupler, the combination with the draw-head provided with the ordinary mouth and pin-hole and a coupling-pin, of an arc-shaped passage-way extending back of the pin-hole from the mouth through the upper portion of the draw-head, an arc-shaped block B provided with a flat front upper end and arc-shaped front lower portion and the connecting chain, arm and operating rods connected to the arm, the vertical rod being supported in a bracket and having a stop-pin designed to come in contact with such bracket to limit the upward movement of the rod, as and for the purpose specified. 6th. The combination with the draw-head suitably laterally supported, of the fulcrum O, and the block P, extending under the draw-head forward of the fulcrum and having the operating rod *p* extending through it near one corner, as and for the purpose specified.

No. 51,705. Composition of Matter for Removing Paint. (Composition de matières pour enlever la peinture.)

Charles Stuart Bailey, Augustine, Florida, U.S.A., 19th March, 1896; 6 years. (Filed 25th February, 1896.)

Claim.—1st. A composition of matter for removing paint consisting of calcium sulphuret, calcium oxide, barium oxide, arsenious acid and soda ash, mixed with water. 2nd. A composition of matter for removing paint consisting of calcium sulphuret, calcium oxide, barium oxide, arsenious acid and soda ash, mixed with vegetable matter to act mechanically to prevent sediment, substantially as set forth.

No. 51,706. Combination Lock. (Serrure à combinaison.)

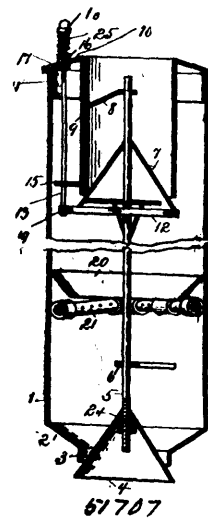


George Washington Hill, New Berlin, Ohio, U.S.A., 19th March, 1896; 6 years. (Filed 27th February, 1896.)

Claim.—1st. In a lock, the combination with a bolt, a bolt cut-off mechanism, and an operative dial, of a cylinder moved by the movement of the dial, and having formed in its periphery a number of grooves, running in the same or different directions, but so related to each other that it is possible for a guide foot moving in said

grooves to be guided to any pre-determined portion of the cylinder, a guide foot moving in said grooves, and means for causing the bolt cut-off mechanism to assume such position as to allow the bolt to be withdrawn when the guide foot has reached a pre-determined portion of the cylinder, substantially as described. 2nd. In a lock, the combination with a bolt, a bolt cut-off mechanism, and an operative dial, of independently revoluble cylindrical sections, mounted on the same axis and arranged to be keyed together to be moved as one piece by the movement of the dial, grooves formed in the peripheries of such sections running in the same or opposite directions, but so related to each other that it is possible for a guide foot moving in said grooves to be guided to any pre-determined portion of said cylinder, a guide foot moving in said grooves, and means for causing the bolt cut-off mechanism to assume such position as to allow the bolt to be withdrawn when the guide foot has reached a pre-determined portion of the cylinder, substantially as described. 3rd. In a lock, the combination with a bolt, a bolt cut-off mechanism, and an operative dial, of independently revoluble cylindrical sections, mounted on the same axis and arranged to be keyed together to be moved by the movement of the dial, a setting dial, and means for indicating thereon the positions of the cylindrical sections, grooves formed in the peripheries of such sections running in the same or opposite directions, but so related to each other that it is possible for a guide foot moving in said grooves to be guided to any pre-determined portion of said cylinder, a guide foot moving in said grooves, and means for causing the bolt cut-off mechanism to assume such a position as to allow the bolt to be withdrawn when the guide foot has reached a pre-determined portion of the cylinder, substantially as described. 4th. In a lock, the combination with a bolt, a bolt cut-off mechanism, and an operative dial, of independently revoluble sections, mounted on a common axis, and arranged to be keyed together so as to be moved by a movement of the dial, a setting dial, collars integrally formed with said cylindrical sections and bearing indicating hands for indicating the respective positions of their sections on the setting dial, grooves formed in the peripheries of the sections running in the same or opposite directions, but so related to each other that it is possible for a guide foot moving in said grooves to be guided to any pre-determined portion of said cylinder, a guide foot moving in said grooves, and means for causing the bolt cut-off mechanism to assume such a position as to allow the bolt to be withdrawn when the guide foot has reached a pre-determined portion of the cylinder, substantially as described. 5th. In a lock, the combination with a bolt and a bolt cut-off mechanism, of a cylinder moved by the movement of the dial and having formed in its periphery a number of grooves, running in the same or different directions, but so related to each other that it is possible for a guide foot moving in said grooves to be guided to any pre-determined portion of the cylinder, a guide foot moving in said grooves, means for causing the bolt to be withdrawn when the guide foot has reached a pre-determined portion of the cylinder, and means for locking the cylinder when the bolt is withdrawn, substantially as described.

No. 51,707. Grain Dampeners. (Humecteur à grain.)

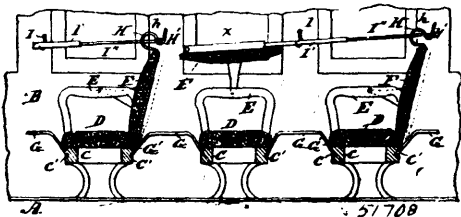


William H. Hill and George G. Arthur, both of Cleveland, Ohio, U.S.A., 19th March, 1896; 6 years. (Filed 24th February, 1896.)

Claim.—1st. The combination of a casing, having an inlet for the grain and a valve governing the inflow of said grain, of an outlet for the grain of substantially the same size as the inlet, and a second valve governing the size of the passage for the egress thereof, said valves being connected together to move simultaneously, substanti-

ally as described. 2nd. The combination with a casing, having an inlet for the grain, and a valve governing the inflow of said grain, of an outlet for said grain of substantially the same size as the inlet, and a second valve governing the size of the passage for the egress thereof, said valves being connected to move simultaneously, and one being adjustable independently of the other, substantially as described. 3rd. The combination with a casing 1, having an inlet and outlet for the grain, both of substantially the same capacity, of inlet and outlet cones 7 and 4, connected together by the spindle 5 and governing the ingress and egress of the grain, a bar 12 connected with one of said cones, and a threaded rod 13 engaging with said bar 12, for positively adjusting both cones simultaneously and equally, substantially as described. 4th. The combination with a casing 1, having a contracted outlet 3, of a cone 4 working therein, a cap 10 fitting the top of the casing, a tube 9 of the same capacity as the outlet depending from the cap, a cone 7 set in the bottom of the tube, and connected to cone 4, a threaded rod 13, and a bar 12 connected to said rod and with the cones 4, 7, for simultaneously adjusting both of said cones and positively holding them in any fixed or desired position, substantially as described.

No. 51,708. Sleeping Car. (Char-dortoir.)

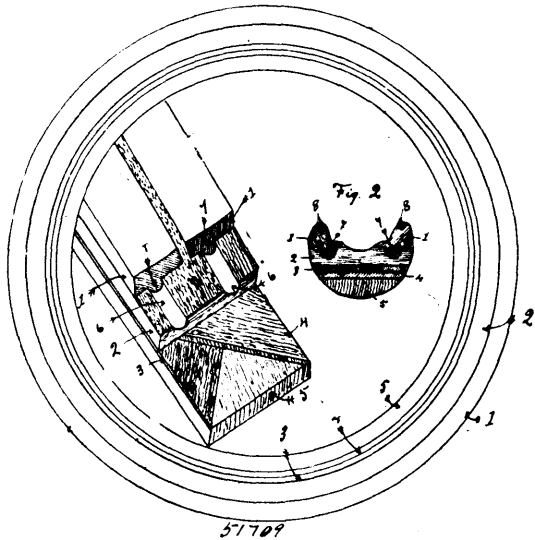


Charles W. Bradstreet, assignee of Lorenzo T. Bradstreet, both of Rowley, Massachusetts, U.S.A., 19th March, 1896; 6 years. (Filed 24th February, 1896.)

Claim.—1st. In combination with railway car seats, two or more tubes I, I, secured to the seat back, and having telescopic tubes I¹, I¹¹ arranged therein with cross bars i¹, i¹¹, and two or more springs H, H detachably secured to the seat back and a detachable sheet or covering, K secured to such telescopic frame. 2nd. In the combination with railway car seats, two or more tubes I, I, secured to the seat back and having telescopic tubes I¹, I¹¹, arranged therein with cross bars i¹, i¹¹, and two or more springs H, H, detachably secured to the seat back and having notches or recesses h, and upwardly projecting ends H¹, and a detachable sheet or covering K secured to such telescopic frame. 3rd. A sleeping car consisting of the seats D, D, and intermediate sheet covered frames G, G, adapted to be secured to and between the said seats and to constitute the lower double berth combined with telescopic frames I, I¹, I¹¹, attached to the seat backs and provided with a detachable sheet or covering K, and springs H, H detachably secured to the seat backs and adapted to serve as supports for the upper or head ends of the telescopic frames to constitute an upper double berth, substantially as and for the purpose set forth.

No. 51,709. Vehicle Wheel Rim.

(*Jante de roue de voiture.*)

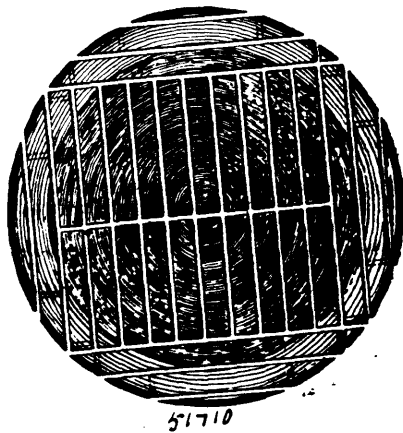


William DeLang, Cobourg, Ontario, Canada, 19th March, 1896; 6 years. (Filed 14th December, 1895.)

Claim.—1st. A bicycle wheel rim having the outer layers 1 and 2 of wood tongued and grooved and cemented together, as described and shown. 2nd. In a bicycle wheel rim, the outer layers 1 having tongues 7, the second outlayer 2 having grooves 6, the grain of the wood in these layers lying at an angle or crosswise to each other, and all firmly cemented together, substantially as and for the purpose hereinbefore set forth. 3rd. A bicycle wheel rim comprising any number of layers of wood so placed that the grain of the wood of one layer will cross at any desired angle the grain of the next layer, the outer layer having tongues to fit in the grooves in the second outer layer and all cemented together, substantially as and for the purpose hereinbefore set forth. 4th. In a bicycle wheel rim, wires running around the two outer edges of the rim, embedded in the outer edges of the rim, completely encircling the rim, to prevent the edges from splitting off of the rim coming apart, as described and shown. 5th. In combination, in a vehicle wheel any desired number of layers of wood, the grain in each being placed at an angle to the grain of the other to prevent splitting, the second outer layer having grooves 6, and the outer layer or strips having tongues 7 to fill grooves 6 and the grain of the wood in the outer layer or strips I running diagonally across the section thereof from top to bottom, as shown by the shade lines in the drawing, to give the maximum strength, and all cemented firmly together, substantially as and for the purposes hereinbefore set forth.

No. 51,710. Device for Sawing Logs.

(*Appareil pour scier les billots.*)



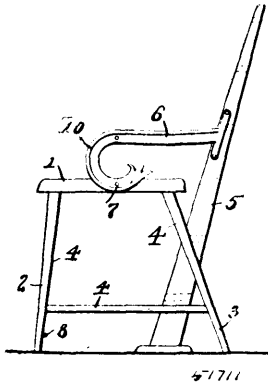
Annie S. Dees, (as agent and trustee), Moss Point, Mississippi, and George H. Howard, Washington, Columbia, assignees of Mark A. Dees, Moss Point, Mississippi, all in the U.S.A., 19th March, 1896; 6 years, (Filed 24th February, 1896.)

Claim.—1st. In a saw mill, the combination of two carriages on opposite sides of the saw and rigidly secured together gauges on both carriages, stops to regulate the inward movement of the gauges, and means for operating the gauges, substantially as set forth. 2nd. In a saw mill, the combination of two carriages on opposite sides of the saw and rigidly secured together, tracks on the under side of the carriages, rollers journaled to the floor for supporting the carriage, and bearings on the outside of the carriages, substantially as set forth. 3rd. In a saw mill carriage, consisting of two parts with the saw between them, the combination of a gauge or gauges on one part capable of a predetermined movement toward the saw and an indefinite movement from the saw, and a similar gauge or gauges on the other part, substantially as set forth. 4th. The combination of a saw mill carriage, consisting of two like parts firmly united together with a space between them for a saw, similar gauges on both parts having a definite inward movement and an indefinite outward movement, and means for moving them in either direction, whereby the material to be cut supported on one part, is measured by the gauge or gauges on the other part, substantially as set forth. 5th. In a saw mill, the combination of oppositely set saws, carriages at either side of said saws, and means for holding the log and gauging the cut, substantially as set forth.

No. 51,711. Ladder Chair. (Chaise échelle.)

Edgar Bennett Rogers, assignee of George Washington Darby, both of Hamilton, Ohio, U.S.A., 19th March, 1896; 6 years. (Filed 25th February, 1896.)

Claim.—In a ladder chair, the combination, substantially as set forth, of a jointless chair-seat rigidly supported on legs, pivots rigidly supported at each side of said seat in a common plane sub-



stantially midway between the front and rear thereof, a ladder disposed at an inclination at the rear of said rigid chair-seat with its base upper-most and its top portion at the floor inwardly beyond the rear edge of said chair-seat, and arms rigidly secured to said ladder and projecting inwardly into engagement with said pivots.

No. 51,712. Means of Extracting Minerals from Refractory Ores, etc. (*Moyen d'extraire des mineraux réfractaires, etc.*)

Henry Ernest Fry, assignee of John David and Carl Le Doux, all of 28 Billiter Buildings, Billiter street, London, England, 19th March, 1896; 6 years. (Filed 22nd January, 1896.)

Claim.—1st. Smelting refractory complex lead ores with a flux prepared with nitre cake or other form of bisulphate or sulphate of soda and burnt pyrites or other form of iron oxide. 2nd. Smelting refractory complex lead ores with a flux substantially as described, which combines with the zinc of the ore and forms therewith a liquid slag.

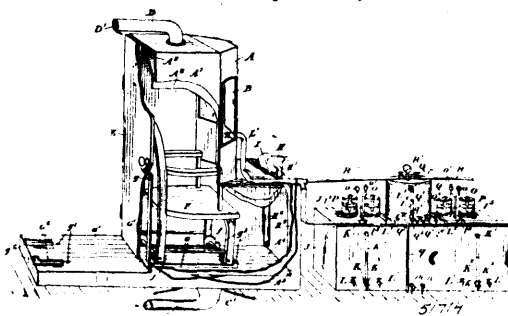
No. 51,713. Composition for Kindling Fires.

(*Composition pour allumer le feu.*)

John Joseph Keating and Alphonso MacFarlane, both of Ottawa, Ontario, Canada, 19th March, 1896; 6 years. (Filed 14th February, 1896.)

Claim.—A compound composed of saw-dust, rosin, coal dust and turpentine substantially in the proportions and for the purposes set forth.

No. 51,714. Depurator. (*Epurateur.*)



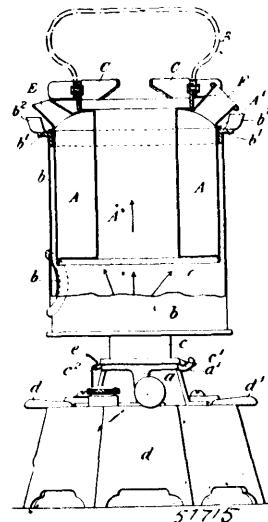
George William Booth, Lewis Henry Moffatt and Donald Campbell, (as trustees), assignees of Daniel D. Wilson, all of Toronto, Ontario, Canada, 19th March, 1896; 6 years. (Filed 16th December, 1895.)

Claim.—1st. In a medicated vapour apparatus, a cabinet having double side walls and double floor and ceiling communicating with each other, a cold air supply pipe extending through the lower floor and an exhaust pipe extending from the top of the cabinet, as and for the purpose specified. 2nd. In a medicated vapour apparatus, the combination with an L-shaped cabinet, of an exhaust fan suitably driven and provided with branch pipes extending down into

the front corners of the cabinet and provided with openings near the bottom, as and for the purpose specified. 3rd. In a medicated vapour apparatus, the combination with the cabinet L-shaped in form and provided with a suitable door, a platform extending rearwardly from such door and forming a continuation of the floor of the cabinet and a chair for the patient provided with wheels, of rails designed to support and form a guide for the wheels and extend from the inside of the cabinet to the outside of the platform when the door is open, as and for the purpose specified. 4th. In a medicated vapour apparatus, the combination, with the cabinet L-shaped in form and provided with a suitable door, a platform extending rearwardly from such door and forming a continuation of the floor of the cabinet and a chair for the patient provided with wheels, of rails comprised of the inner portions, the outer portions on the platform and the intermediate portions swung upon the inner portions and designed to be brought down to complete each rail when the door is open, as and for the purpose specified. 5th. In a medicated vapour apparatus, the combination with the cabinet, of a distributing pipe, a medicated vapour apparatus for supplying such pipe, a cold air pipe connected to the distributing pipe and an apparatus for supplying continuous pressure of cold air through such pipe into the distributing pipe, as and for the purpose specified. 6th. In a medicated vapour apparatus, the combination with the cabinet and distributing pipe, of a generator having medicine tank or tanks provided with vapourizing cups in the tanks with side passage-ways for the vapour communicating with the interior of the tank and heating means for the tank or tanks, as and for the purpose specified. 7th. In a medicated vapour apparatus, the combination with the cabinet and distributing pipe, of a generator having a medicine tank or tanks provided with vapourizing cups in the tanks with side passage-ways for the vapour communicating with the interior of the tank and provided with suitable closing plugs and heating means for the tanks, as and for the purpose specified. 8th. In a medicated vapour apparatus, a generator comprising a tank or tanks containing medicated water, heating means for the tanks, vapourizing cups with side passage-ways and distributing pipes leading from such cups to the cabinet and the supplemental medicated cups supported at the top of the generator and provided with drop tubes, as shown and for the purpose specified. 9th. In a medicated vapour apparatus, the combination with the medicine tanks and vapourizing cups and a distributing pipe for the vapour leading from the vapourizing cups to the cabinet, of cold air tanks supplied with a gradual supply of cold water from the main and cold air pipe leading therefrom to the distributing pipe, as and for the purpose specified. 10th. In a generator of the class described, the combination with the vapourizing cups, of faucets connected at the bottom of the cups, as and for the purpose specified. 11th. In a generator of the class described, the combination with the medicine tanks and heating means for the same, of a steam gauge and safety valve for each tank, as and for the purpose specified. 12th. In a generator of the class described, provided with vapourizing generators or cups and distributing pipes, of a cold air tank and pipes leading to the distributing pipe and a pressure gauge connected to the cold air pipe, as and for the purpose specified.

No. 51,715. Oil or Gas Stove, etc.

(*Poêle à huile ou gaz, etc.*)

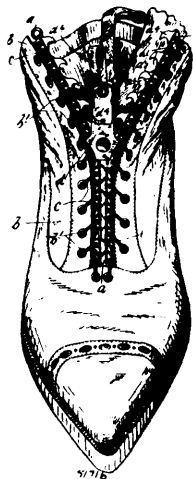


Walter Darby, Ion Darby and John Henry Punchard, all of the Weston Works, Weston street, Kings Cross, London, England, 19th March, 1896; 6 years. (Filed 21st February, 1896.)

Claim.—1st. The combination with a burner forming the base or stand for the stove of a case or inclosing wall mounted just over said burner, rests or supports for a cooking utensil on the top of said case, a kettle adapted to fit closely as a plunger within said case, a flange on said kettle to support same on or to the said top edge of said case and a vertical passage or passages through said kettle substantially in the manner and for the purposes hereinbefore described. 2nd. The combination with an oil reservoir such as *d* forming the base or stand for the stove of a case or inclosing wall such as *b* mounted just over the hood *c* of the burner, rests or supports such as *b*² on the outer edge of the rim *b*¹ on the top of said case, a kettle such as *A* adapted to fit closely within said case *b*, a flange *A*¹ on said kettle to support same on the said rim *b*¹ a vertical passage such as *A* through said kettle and rests or supports such as *C* on the top of said kettle *A* substantially in the manner and for the purposes hereinbefore described and illustrated in the drawings hereunto annexed. 3rd. The combination with a kettle having a vertical passage or passages therethrough of rests or supports such as *C* on the top thereof substantially in the manner and for the purposes hereinbefore set forth. 4th. The improved cooking stove and utensil for use in conjunction therewith arranged constructed combined and acting substantially in the manner and for the purposes hereinbefore described and illustrated in the drawing hereunto annexed.

No. 51,716. Fastener for Partable Bodies.

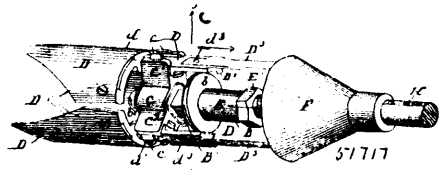
(*Attache pour chaussures, etc.*)



Whitcomb L. Judson and Harry J. Earle, both of New York, State of New York, U.S.A., 19th March, 1896; 6 years. (Filed 21st February, 1896.)

Claim.—1st. A fastener for partable bodies comprising a pair of sidewise coupling chains having, on their facing links, coupling parts constructed to couple and uncouple, by a pivotal movement of said facing links, in a definite progressive order only, and, when coupled, to remain locked together against strain in every direction except uncoupling strain from the head or last coupled pair of links backward, in the reverse order to the coupling action, whereby said chains may be uncoupled with an instantaneous splitting action, substantially as described. 2nd. The combination with the pair of sidewise coupling chains, having, on their facing links, coupling parts constructed to couple and uncouple, by pivotal movement of said facing links, in a definite progressive order only, of a cam channel slider movable over said chains for coupling the facing links and locking the same in their coupled position, substantially as described. 3rd. The combination with the pair of sidewise coupling chains, of a cam channel slider movable on said chains, for coupling the chains when the slider is moved in one direction, and subject to a camming action from the two chains, in their uncoupling or splitting action, whereby the slider is automatically returned to its initial position on the chains, substantially as described. 4th. The combination with the pair of sidewise coupling chains, of the cam channel slider movable on said chains, for coupling the same together, and means of securing the slider to the head or last coupled pair of facing links, for locking the chains in their coupled position, substantially as described. 5th. The combination with the pair of sidewise coupling chains having coupling parts on their facing links of the cam channel slider movable on said chains, for coupling and locking the chains together, and a stop device on one of the head links of the chains, for preventing the slider from being drawn entirely off from the chains, substantially as described.

No. 51,717. Tube Scraper. (*Grattoir pour tubes.*)



Veitius Rodspinner and Howard M. Fuller, both of Peoria, Illinois' U.S.A., 19th March, 1896; 6 years. (Filed 21st February' 1896.)

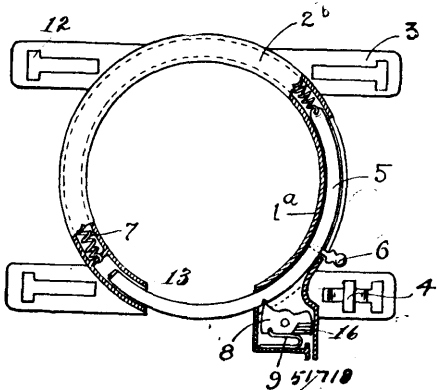
Claim.—1st. A cleaner comprising a support, a head adjustable thereon, a series of scraper blades mounted on the head to slide thereon, and means for automatically expanding said blades as the cleaner is moved through a boiler tube, substantially as described. 2nd. A cleaner comprising an adjustable head, a collar mounted to slide thereon, a series of scraper blades connected to said collar and means for expanding the scraper blades, substantially as described. 3rd. A cleaner, comprising a head, said head being rectangular in cross-section, a collar provided with a rectangular opening and mounted on said head, and a series of scraper blades mounted on said collar, substantially as described. 4th. A cleaner comprising a head, a collar mounted to slide on said head, a series of scrapers mounted on the collar and means for positively expanding and contracting the blades, substantially as described. 5th. A cleaner comprising a head, a series of blades mounted on the head and adapted to slide thereon, and means for positively and automatically expanding and contracting the blades as the cleaner is inserted into and withdrawn from a boiler tube respectively, substantially as described. 6th. A cleaner, comprising a head, a collar sliding thereon, a series of scraper blades loosely mounted in the collar and provided with extensions having inclines, and a flange on the head adapted to impinge upon said inclines, substantially as described. 7th. In a cleaner, the combination with the head, of the scraper blades mounted to slide thereon, said blades having extensions, and a conical shell connected to the head and adapted to operate on the extensions to expand the blades, substantially as described. 8th. In a cleaner, the combination with the head, the blades mounted to slide thereon, and means for collapsing the blades, of a stem adjustably connected to said head, and a conical shell mounted on the stem and adapted to expand the blades, substantially as described. 9th. In a cleaner, the combination with the head, the collar mounted to slide thereon, and blades loosely mounted in the collar and provided with rearward extensions, of a stem adjustably connected to the head and provided with a conical shell operating on the blades, substantially as described. 10th. In a cleaner, the combination of a support provided with bearings, the scraper blades provided with inclined surfaces adapted to engage the bearings of the support and a sliding connection between the scraper blades and support, substantially as described. 11th. In a cleaner, the combination of a head, a collar mounted to slide thereon, a series of blades supported on the collar and devices attached to said head for expanding and contracting the blades as the cleaner is forced forward or withdrawn respectively, substantially as described. 12th. A cleaner, comprising a support provided with bearings, scraper blades mounted to slide on the support and provided with inclined surfaces adapted to engage the bearings of the support, to contract the same and independent means on the support for expanding the blades, substantially as described. 13th. A cleaner comprising a support, a conical shell thereon scraper blades mounted to slide on the support and engage the conical shell, and means for automatically contracting the scraper blades substantially as described. 14th. A cleaner comprising a head having a flange, the scraper blades mounted to slide on the head and having inclined portions for engaging the flange of the head, and a conical shell adapted to be engaged by the scraper blades, substantially as described. 15th. In a cleaner, the combination of a support, a series of scraper blades mounted thereon, and means for positively and automatically expanding the blades as the cleaner is moved through a boiler tube in one direction and for positively and automatically contracting said blades as the cleaner is moved through the tube in the opposite direction, substantially as described.

No. 51,718. Bicycle Lock. (*Serrure de bicyclette.*)

Lewis Deitz, Albany, assignee of Maguler Butler, Rochester, both of New York, U.S.A., 19th March, 1896; 6 years. (Filed 14th February, 1896.)

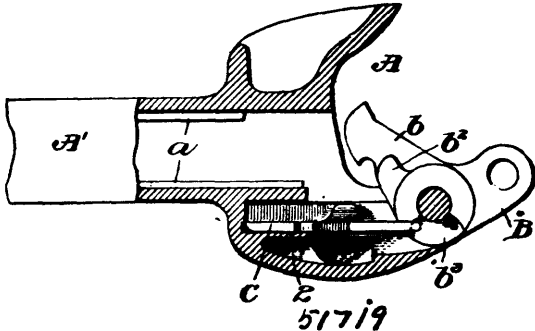
Claim.—1st. In a lock for bicycles, a circular tube having part broken away leaving an opening therethrough, a sliding bolt adapted to reciprocate within said tube, a spring attached to said sliding bolt, said sliding bolt adapted to close said opening against the tension of said spring, with a lock adapted to hold said sliding bolt in said position, substantially as described and for the purpose set forth. 2nd. In a lock for bicycles, a suitable ring, a recess in said ring, a sliding bolt adapted to move in said recess, a spring attached to said sliding bolt and secured to said ring within said recess, a part of said ring broken away, a means for attaching said lock to the bifurcated post of a bicycle in such a manner that the lock may be held in position with the tire and felly of the forward bicycle wheel encircled by said

ring and so arranged that when the lock is closed, the revolution of said wheel is interferred with, substantially as described and for the purpose set forth. 3rd. A bicycle lock consisting of a recessed ring, sliding bolt located in the recess, and a spring detent, substantially



as described and for the purpose set forth. 4th. A bicycle lock consisting of a ring, a recess therein, a bolt, spring detent, and a spring attached to the bolt and adapted to be put in tension by sliding a bolt and locking the device, substantially as described and for the purpose set forth. 5th. In a bicycle lock, a ring, a bolt recessed therein, a spring put in tension by the locking of said bolt, an arrangement for mounting said bolt consisting of clamps adapted to fit about the two arms of the biturcated post held in position by suitable pins or bolts, a lug on each of said clamps adapted to pass within the T-shaped slots within the arms secured to said ring, substantially as described and for the purpose set forth.

No. 51,719. Car Coupler. (Attelage de chars.)



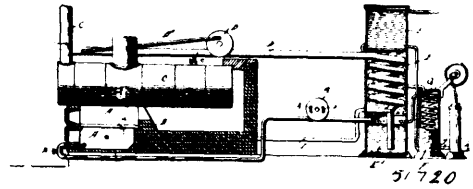
Abbie Hewes Lovejoy, New Rochelle, and Edward Eddy Chase assignee of Frank Averill Fox, both of New York, all of the State of New York, William Longshore Hoffesker, Elizabeth, New Jersey, and William Elmer Seeley, jr., Bridgeport, Connecticut, all in the U.S.A., 20th March, 1896; 6 years. (Filed 20th February, 1896.)

Claim.—1st. A car coupling device comprising an angular knuckle having a tail-piece adapted to swing into a recess of the coupler-head, and a horizontally sliding locking block having an arm provided with a rigid integral extension which directly engages a rotating element of the knuckle so as to positively open the knuckle by a direct pull thereon at the same time that the latter is unlocked, substantially as described. 2nd. A car coupling device comprising a coupler-head having a recess, an angular knuckle pivoted to said head and provided with a tail-piece adapted to swing into said recess, and a horizontally slidable locking block arranged in said head having an arm formed with a forward integral extension directly engaging a rotating element of the knuckle, and adapted to positively open the latter at the same time that it is unlocked, and also to move into locking position without closing the knuckle, substantially as described. 3rd. In a car coupling, the combination with a recessed coupler head and an angular knuckle pivoted thereto having a tail-piece adapted to swing into said recess, of a longitudinally slidable locking block arranged in the coupler-head, and means for operating said block so as to automatically lock the knuckle, said locking block being provided with a rigid forwardly extending arm connected directly with a rotating element of the knuckle so as to positively open the knuckle by a direct pull when the latter is unlocked, said connection being adapted to permit the block to move to locking position without closing the knuckle, substantially as described. 4th. A car coupling device comprising a coupler-head having a recess provided at one side with a ledge extending longitudinally thereof, an angular knuckle having a tail-piece adapted to swing into said recess, and a horizontally sliding locking block having an arm provided with a rigid extension which directly engages a rotating element of the knuckle so as to posi-

tively open the knuckle by a direct pull thereon at the same time that the latter is unlocked, said locking block being arranged to slide in said recess and having a lateral offset or shoulder adapted to ride upon said ledge so as to support the foot-piece or base of the knuckle above the bottom of said recess, substantially as described. 5th. The combination with a coupler-head and an angular knuckle pivotally connected thereto, of a locking device adapted to engage and lock the knuckle, and a can arranged near the axis of rotation of said knuckle adapted to contact directly with the aforesaid locking device and move the same out of the path of the tail-piece of said knuckle when said tail-piece is moving inward, substantially as described. 6th. In a car coupling, the combination with a coupler-head and a knuckle having a tail-piece pivotally connected thereto, of a locking block slidingly held in the coupler-head and adapted to permit the passage of the tail-piece, and a can on said knuckle near the axis of rotation thereof adapted to contact with the forward edge of said block, together with means for automatically restoring the block to locking position, substantially as described.

No. 51,720. Smoke Purifier, etc.

(Appareil pour purifier la fumée, etc.)



Thomas C. Young and Ovanto M. Horton, both of St. Charles, Iowa, U.S.A., 20th March, 1896; 6 years. (Filed 14th February, 1896.)

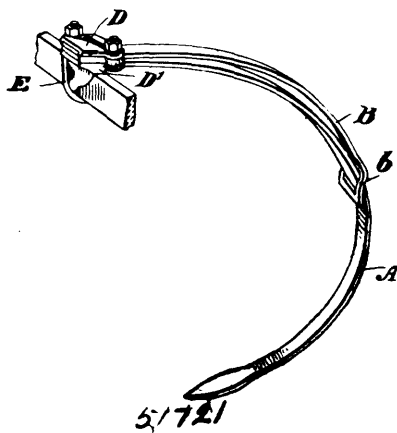
Claim.—1st. In combination with a furnace, of an exhaust apparatus for the products of combustion comprising a pipe D, which connects with the smoke flue of the furnace and is formed into a coil located in a tank filled with water, the end of said pipe discharging into a tank partly filled with water, a rotary pump or blower D', located in the pipe D, and pipes D², connected to the blower, and the pipe D forward of the blower, substantially as shown and for the purpose set forth. 2nd. In a smoke purifier and consumer, the combination, of a tank or receptacle divided into compartments E¹, E², E³, a pipe D leading from the smoke discharge flue of the furnace and formed into a coil which is located in the compartment E², the discharge end of the pipe D being located in the lower part of the compartment E³, means for drawing the purified smoke from the compartment E³, mixing the same with air and forcing it into the furnace, a coil G connected with a pump for withdrawing from the compartment E³, the products which float upon the liquid contained therein, the compartments E¹, E² and E³, having suitable water supply and discharge pipes, substantially as shown and for the purpose set forth. 3rd. In a smoke purifier and consumer, the combination with a furnace having pipes D, K and I connected thereto substantially as shown, of a tank E divided into compartments E¹, E², E³, a second tank containing a coil which communicates with the compartment E³ and with a pump, pipe connecting the compartments E¹, and E² with the tank F, and blowers D¹ and K¹, the blower K¹ having air supply openings, and the pipe I being connected to the pipe D, and leading therefrom directly to the furnace, the parts being organized, substantially as shown and for the purpose set forth. 4th. In a smoke purifier and consumer, the combination, of a furnace and steam boiler, a pipe D, connected to the smoke-stack of the furnace, and to the boiler by means of a pipe C, the pipe D being formed into a coil substantially as shown, together with a chamber E, divided into compartments E¹, E² and E³ with water supply pipes as set forth, a pipe K for taking the purified smoke from the chamber E³ and discharging it into the furnace, said pipe having a rotary blower or pump with air openings, a pipe I connecting the pipe D with the furnace, a tank F communicating with the compartments E¹, and E² as shown, and a coil G, located within the tank F, one end of the coil extending into the compartment E³, below the pipe K, and the other end connected to a pump, the parts being organized substantially as shown and described.

No. 51,721. Cultivator Teeth. (Dent de cultivateur.)

The Peter Hamilton Manufacturing Company, Assignee of Andrew Johnston, both of Peterboro', Ontario, Canada, 20th March, 1896; 6 years. (Filed 18th January, 1896.)

Claim.—1st. The combination with the tooth having the upper portion of equal thickness and width throughout, of an auxiliary spring secured to the tooth at the upper end extending substantially parallel therewith throughout portion of its length and having an elongated angled loop forming part thereof through which the tooth extends as and for the purpose specified. 2nd. The combination with the tooth having the upper portion of equal thickness and width throughout, of an auxiliary spring secured to the tooth at the upper end extending substantially parallel therewith through portion of its length and having an elongated angled loop forming part thereof through which the tooth extends and clamping means for securing

such tooth to the supporting bar as and for the purpose specified. 3rd. The combination with the tooth having the upper portion of equal thickness and width throughout, and an auxiliary spring secured to the tooth at the upper end extending substantially parallel



therewith throughout portion of its length and having an elongated angled loop forming part thereof through which the tooth extends of the clip bracket, channels in the bracket, pins in the channels, holes in the end of the spring and tooth to fit over such pins and a means for securing the portions of the clip together upon the supporting bar as and for the purpose specified.

No. 51,722. Keg Pitching Apparatus.

(Appareil de chaudière à bras.)



The Pabst Brewing Company, assignee of Jacob F. Theurer and Oscar Mueller, all of Milwaukee, Wisconsin, U.S.A., 20th March, 1896; 6 years. (Filed 18th February, 1896.)

Claim.—1st. In a keg-pitching apparatus, the combination of a tank or trough, a furnace for heating the same, a rotatable platform a nozzle, means for projecting said nozzle above and drawing it below said platform at will, a pipe connection between the trough and the nozzle, and a pump adapted to draw fluid from the trough and deliver it through the nozzle, substantially as set forth. 2nd. The herein described apparatus for pitching or enameling kegs, consisting of a furnace as A, a covered trough C, a series of platforms or turntables D, means for rotating said turntables, a series of injector nozzles P, a supply main V communicating with the respective nozzles, means for opening and closing communication between the main and each nozzle independently, and a pump W communicating with the main and with the trough, and serving to deliver fluid from the latter to the former. 3rd. In combination with a trough C and a cover or top plate therefor, a casting G provided with an upwardly-extending neck g, a rotatable platform or turntable D having a depending collar f to encircle the neck g, and provided with a flange k, and a retaining collar H secured to the cover or top plate and overhanging the flange k, substantially as and for the purpose set forth. 4th. In a keg-pitching apparatus, the combination of a trough C, a cover I therefor, a neck g extending above said cover, a neck p extending below said cover and below the liquid level of said trough, and a platform or turntable encircling the neck g, and having the overhanging flange n, as and for the purpose set forth. 5th. In a keg-pitching apparatus, the combination of a tank or trough, a fixed pipe T communicating therewith, and provided with an opening t, radius pipe S sleeved upon said pipe T, injecting nozzle P, and tubular link R, connecting the pipe S, and the nozzle P, substantially as and for the purpose set forth. 6th. In combination with trough C, fixed pipe T, provided with opening t, and channel u, radius pipe S, sleeved upon pipe T, and having an opening x in its sleeve, nozzle P and tubular link R connecting the nozzle and the radius pipe, whereby when the nozzle is raised it is placed in communication with the interior of pipe T, and when lowered communication is cut off with the interior of pipe T, and opened with the trough C, through passage u, and opening x. 7th. In combination with the keg-supporting platform D, and movable

nozzle P, supply pipe T, the radius pipe S, connecting link R, and bail or handle U, substantially as set forth. 8th. In combination, with a trough C, and rotatable platform or turntable D above the same, casting G provided with guide r, and nozzle P provided with guiding disc s, whereby the nozzle is centered and guided in casting G. 9th. In a keg-pitching apparatus, the combination of a trough adapted to contain a coating fluid, a main communicating with said trough, one or more injector nozzles communicating with said main, a pump communicating with the main and with the trough and serving to pass the fluid from the trough through the main, and a relief valve applied to the main and serving to permit a discharge of fluid from the main directly back into the trough or tank when the pressure exceeds a predetermined limit, whereby the injury to the apparatus is prevented and a circulation within the tank is established. 10th. In a keg-pitching apparatus, the combination of a series of turntables or platforms, a shaft extending past the several platforms, worm gearing connecting the shafts and the platforms, nozzles, and means for protruding the nozzles above and drawing them below the platforms at will, substantially as and for the purpose set forth. 11th. In combination with a tank or trough, a series of platforms or turntables D, injecting nozzles P, and main V for supplying said nozzles, a rotary pump W communicating with the main and with the trough, a vertical shaft O carrying the rotatable member of the pump and provided with gear wheel N, a shaft K extending past the several turntables and provided with a wheel M to mesh with wheel N, and worm gearing connecting the turntables and shaft K, substantially as and for the purpose set forth. 12th. In an apparatus for pitching kegs, the combination of a rotatable platform to support a keg, an injector nozzle, and means for drawing said nozzle below and projecting it above the platform at will, substantially as and for the purpose set forth. 13th. In a keg-pitching apparatus, combination of a tank or trough to contain a coating fluid, a supply pipe communicating with said tank, a pump serving to draw the fluid from the tank and force it through said pipe, a platform to sustain a keg, an injector nozzle connected with the supply pipe, and means whereby said nozzle may be moved beyond or withdrawn within said platform, substantially as and for the purpose set forth. 14th. In a barrel-pitching apparatus, the combination of a platform or support for a keg, a nozzle, means whereby said nozzle may be projected above the platform or withdrawn a fluid supply communicating with said nozzle, and a valve interposed between the nozzle and the supply and serving to open communication with the nozzle when the latter is protruded, and to cut off communication therewith when the nozzle is withdrawn. 15th. In a keg-pitching apparatus, the combination of a tank or trough to contain a coating fluid, a nozzle communicating therewith, means whereby said nozzle may be moved to position to enter a cask and be withdrawn at will, and an outlet-opening communicating with the nozzle and serving when the nozzle is withdrawn, to permit fluid contained therein to flow back toward the trough or tank.

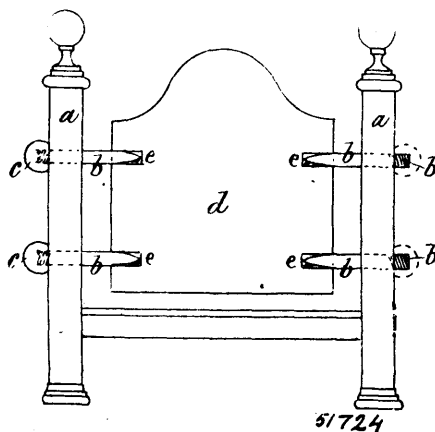
No. 51,723. Composition of Matter.

(Composition de matières.)

The Firm of Hannah, Grant & Co., Montreal, Quebec, assignees of Alfred Smith Hannah, Toronto, Ontario, all in Canada, 20th March, 1896; 6 years. (Filed 15th February, 1896.)

Claim.—1st. A composition of matter to be applied to floors to allay dust when sweeping, consisting of crude petroleum, benzine, linseed oil, beeswax alcohol, gum shellac, red oxide of lead acetic acid and amyl alcohol, in about the proportions stated.

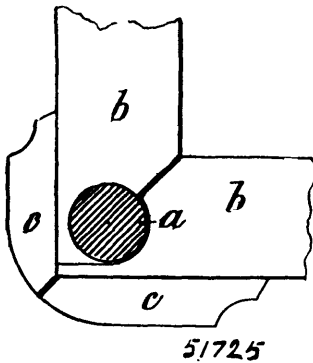
No. 51,724. Metallic Bedstead. (Couchette en fer.)



Thomas J. Tear, Alexander McMillan, Jacob Price Haynes, and Charles R. Haynes, all of St. Catharines, Ontario, Canada, 20th March, 1896; 6 years. (Filed 21st February, 1896.)

Claim.—The solid panel *d*, attached to the post *a*, by means of the bolts *b*, passing through the post *a*, substantially as and for the purpose hereinbefore set forth.

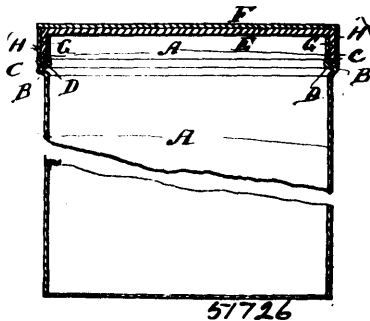
No. 51,725. Metallic Bed Stead. *Couche en fer.*



Thomas J. Tear, Alexander McMillan, Jacob Price Haynes, Charles R. Haynes, all of St. Catharines, Ontario, Canada, 20th March, 1896; 6 years. (Filed 21st February, 1896.)

Claim.—The tapered and dovetailed lock *c*, and the support *c*, attached to the rail *b*, having a dovetailed corner slightly tapered into which dove tailed corner the rail fits over the tapered and dove tailed lock *c*, by means of the groove *h*, substantially as and for the purpose hereinbefore set forth.

No. 51,726. Metal Can. (*Boite metallique.*)



Henry Paterson, Sydney, New South Wales, assignee of Charles McQuillan, Balmain, Near Sydney aforesaid, 20th March 1896; 6 years. (Filed 20th February, 1896.)

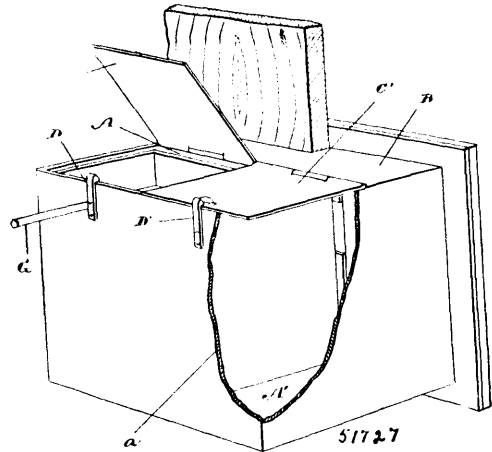
Claim.—1st. A metal can (such as A) having a projection abutment or rim (such as B), and a groove (such as C) formed around its side or sides, substantially as herein described and for the purposes set forth. 2nd. A metal can (such as A) having a strong inner or intermediate lid (such as E) and a thin outer lid or cover (such as F), substantially as and for the purposes set forth. 3rd. A metal can (such as A) having an outer lid or cover (such as F) provided with a flange (such as H), and a cutting wire fitted in a groove in one or more of its sides for the purpose of cutting through the same, substantially as described and for the purposes set forth. 4th. A metal can (such as A) having a projection abutment or rim (such as B), a groove (such as C) in which is supported a wire (such as D), an inner or intermediate lid (such as E) having a flange (such as G), and an outer lid or cover (such as F) having a flange (such as H), all arranged substantially as described and for the several purposes set forth.

No. 51,727. Garbage Pit. (*Fosse pour tripaillies.*)

Thomas Henry Shipway, Toronto, Ontario, Canada, 24th March, 1896; 6 years. (Filed 4th March, 1896.)

Claim.—1st. A garbage pit, consisting of two compartments, a hinged lid fitted to the top of each of the compartments, a latch to hold the hinged lids closed, and a door to close the front of each of the compartments, substantially as specified. 2nd. A garbage pit,

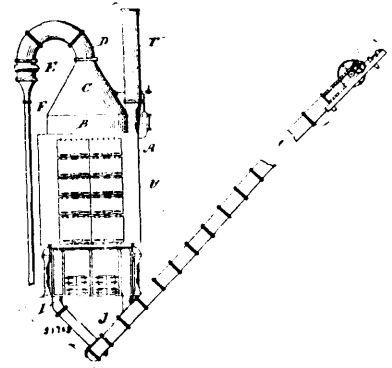
consisting of two compartments, a hinged lid fitted to the top of each of the compartments, a latch to hold the hinged lids closed, and a door to close the front of each of the compartments, two fixed



tracks within one of the compartments, a movable carriage having an open bottom, surrounded by a flange mounted on the said tracks, and a rod to actuate the movable carriage, substantially as specified.

No. 51,728. Evaporating Apparatus.

(*Appareil évaporatoire.*)



Thomas Craney, Bay City, Michigan, U.S.A., 24th March, 1896; 6 years. (Filed 24th February, 1896.)

Claim.—1st. In an evaporating apparatus, the combination of the shell or casing forming an evaporating pan or chamber, and two series of tubes extending at an angle to each other through the evaporating chamber, and connecting into the side flues, the parts combined so that the products of combustion pass successively through the two series of tubes. 2nd. In an evaporating apparatus, combination of the casing or shell, vertical flues beside the same, tubes connecting the opposite flues through the evaporating chamber, a furnace connecting with the base of one flue, a stack on the adjacent flue, and lateral connection between the other two flues. 3rd. In an evaporating apparatus, the combination of the casing or shell, vertical side flues, tubes connecting the opposite flues through the evaporating chamber to form a series of vertical openings beside which the horizontal flues form ladders, the furnace and stack connected as and for the purpose described. 4th. In an evaporating apparatus, the combination of the casing or shell, a furnace at the bottom, having an arch shaped top of lesser width than the shell to leave settling legs beside the same, an elevator connecting to the foot of the settling legs, vertical flues beside the evaporating chamber, horizontal tubes connecting the opposite flues through the chamber, the furnace connecting into the bottom of one flue, the smoke stack extending from the top of an adjacent flue, and a lateral connection between the other two flues, for the purpose described. 5th. In an evaporating apparatus, the combination of the vertical polygonal casing or shell, water legs on two sides thereof, a furnace under the same between the legs, vertical flues on front and rear of the shell, the furnace connecting with the lower end of the rear flue, a stack at the top of the front flue, and a series of separated tubes connecting the two flues through the casing, substantially as described. 6th. In an evaporating apparatus, the combination of the vertical, polygonal casing forming an evaporating chamber, outer vertical smoke flues connected with the stack and furnace, as described, two series of horizontal tubes connecting the opposite flues and doors in the outer casing, as described.

No. 51,729. Mantle for Lighting by Incandescence.

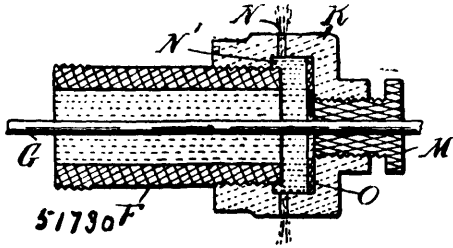
(*Manteau pour éclairage à incandescence.*)

Arthur Otis Granger, Philadelphia, Pennsylvania, assignee of Achille Marie Plaissetty, New York, State of New York, both in the U.S.A., 24th March, 1896; 6 years. (Filed 2nd March, 1896.)

Claim.—1st. Mantles for lighting by incandescence, consisting of threads of collodion containing salts such as nitrates or acetates, or oxides or salts from monazite sands, or other earths or minerals, which, by incineration, give residues susceptible of emitting, under the action of heat, a luminous radiation, substantially as described. 2nd. For obtaining threads of collodion for incandescent lighting, the process described which consists in making a nitro-cellulose or gun cotton mixture of crystallizable acetic acid, the nitrates or acetates of new or old oxides obtained from monazite sands or other earths or minerals, then transforming by drying this filtered syrupy mixture into threads more or less fine and fixing in these threads or artificial fibres the oxides of the rare earths and causing said threads to pass through an alkaline solution, substantially as described. 3rd. For obtaining threads of collodion for incandescent lighting, the process described which consists in making a nitro-cellulose or gun cotton mixture of crystallizable acetic acid, the nitrates or acetates of new or old oxides obtained from monazite sands or other earths, or minerals, then transforming by drying this filtered syrupy mixture into threads more or less fine and fixing in these threads or artificial fibres the oxides of the rare earths or minerals, causing said threads to pass through an alkaline solution, then denitrifying the cellulose or nitric cotton in a neutral or alkaline medium for the purpose of delaying combustion and fixing the oxides in the fibre, as described. 4th. As a new industrial product, a mantle for lighting by incandescence, formed of threads of collodion containing salts such as nitrates, acetates or other salts or mixtures, the said threads being prepared and denitrified, substantially as specified.

No. 51,730. Underground Conduit. (*Conduit souterrain.*)

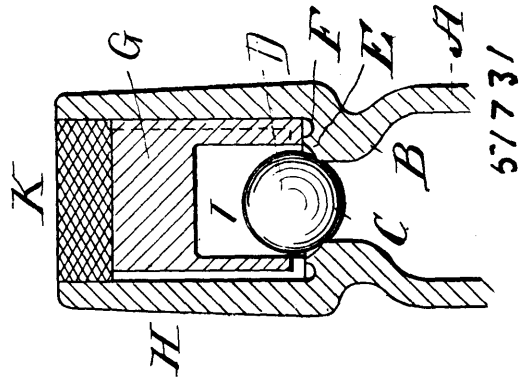
James F. Cummings and William C. Yawkey, both of Detroit, Michigan, U.S.A., 24th March, 1896; 6 years. (Filed 6th November, 1895.)



Claim.—1st. In a conduit for electrical conductors, a tubular duct a conductor supported therein, boxes dividing the duct into sections, a non-hardening non-conducting fluid, filling the duct, and means for opening and closing the sections of the ducts whereby each section may be filled or emptied of its fluid independently of the other sections. 2nd. In a conduit for electrical conductors, the combination of a conduit having an inner duct, a conductor supported therein free from the sides thereof, a junction box into which the duct leads, and a valve controlling the duct, substantially as described. 3rd. In a conduit for electrical conductors, the combination of a conduit comprising an outer casing, and a series of inner ducts divided into sections, and valves to control the end of each duct, as and for the purpose described. 4th. In a conduit for electrical conductors, the combination of a conduit comprising an outer casing, and a series of inner ducts, junction boxes into which the conduit leads, dividing the conduit into sections, valves in the boxes controlling each duct independently, and conductors in the ducts passing through the valves, substantially as described. 5th. In a conduit for electrical conductors, the combination of a conduit comprising a duct, a junction box into which it connects, the insulating nipple F thereon, the cap K screwed thereon apertured at the end to permit the conductor to pass therethrough, and having the apertures N through the sides, substantially as and for the purpose described. 6th. In an electrical conductor conduit, the combination with a conduit, having a non-hardening fluid filling, of a wire passing through the filling, a junction box into which the conduit, fluid and wire enter, and a switch in the box below the level of the fluid, substantially as described. 7th. In a conduit for electrical conductors composed of separated sections, each consisting of a conduit casing, a conductor passing therethrough and beyond the same, a fluid filling in the duct, and removable means for sealing the ends of the duct, substantially as described. 8th. In a conduit for electrical conductors, the combination with a series of separated ducts, conductors passing through and beyond the same, a fluid filling in the ducts, and removable means on the ends of each duct for retaining the filling in the ducts, substantially as described.

No. 51,731. Device for Preventing Refilling of Bottles. (*Appareil pour empêcher le remplissage des bouteilles.*)

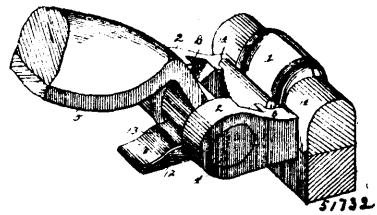
Garson Newwriter, Milwaukee, Wisconsin, and Nathan Schwat, New York, State of New York, assignees of James F. Cummings, Detroit, Michigan, all in the U.S.A., 24th March, 1896, 6 years. (Filed 6th November, 1895.)



Claim.—1st. The combination with the neck of the bottle of block G, and valve D, the parts being combined and arranged as and for the purpose set forth.

No. 51,732. Thill Coupling. (*Arçon de limonière.*)

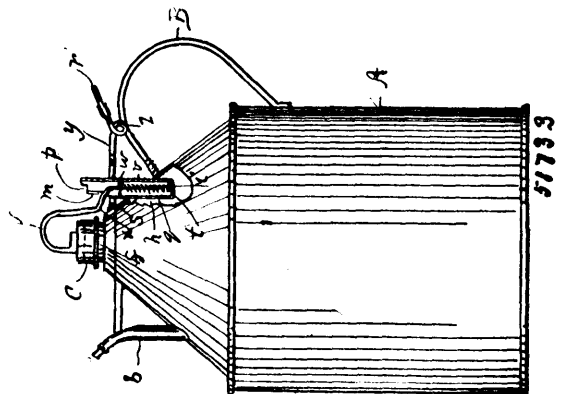
David J. Crosby and Daniel S. Keener, both of Uniontown, Pennsylvania, U. S. A., 24th March, 1896; 6 years. (Filed 24th February, 1896.)



Claim.—In a thill-coupling, the combination of an axle-clip provided with forwardly-extending ears having recesses at their tops, a roller arranged in the ears and provided with a longitudinal slot, adapted to register with the recesses, a thill-iron having a flat head fitting snugly in the slot of the roller and adapted to be introduced into the same through the same recesses, and provided with a rearwardly-extending lug projecting beyond the roller, and an anti-rattler-spring comprising two sections or members and arranged between the ears, one of the sections being substantially V shaped and having its front portion extending forward and engaging the said lug and the other section being substantially triangular and having an inclined rearwardly-extending front portion bearing against the bottom of the roller and terminating in advance of the other section, substantially as described.

No. 51,733. Oil Can. (*Bidon à huile.*)

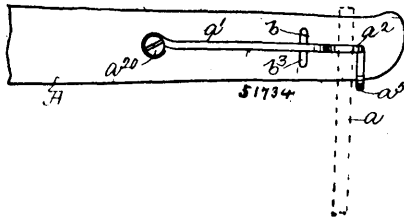
William Froesch, South Lawrence, Massachusetts, U. S. A., 24th March, 1896; 6 years. (Filed 2nd March, 1896.)



Claim.—1st. In an oil can, a slotted cylinder provided with a shoulder in combination with a spring-pulled rod fitted to slide and rotate in said cylinder, a filler nipple cap on the outer end of said

rod, an offset in said rod projecting through said slot and adapted to engage said shoulder and a cam lever pivoted on said can and engaging said rod, substantially as and for the purpose set forth. 2nd. In an oil-can, a slotted cylinder on the can, a spring-tensioned rod fitted to slide and rotate in said cylinder, a filler nipple cap on said rod, a lever pivotally connected to said can and adapted to elevate and rotate said rod whereby the cap is disengaged from the nipple, and devices for supporting the rod thus elevated against the pressure of the spring, substantially as set forth.

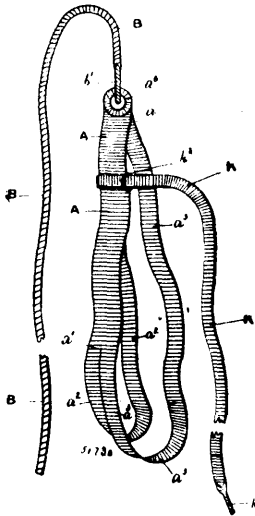
No. 51,734. Trace Fastener. (Crochet de palonnier.)



William Kirkland Wallace, Woodsville, New Hampshire, U.S.A., 24th March, 1896; 6 years. (Filed 4th March, 1896.)

Claim.—1st. The combination with a whiffletree, of a trace fastener consisting of an arm pivotally secured to the said whiffletree and provided at its outer end with an upwardly bent portion a^2 to pass over the trace, and with a hooked portion bent substantially at right angles to the bent portion a^2 , and means to lock the said fastening device in its closed position, substantially as described. 2nd. The combination with a whiffletree, of a trace fastener consisting of an arm pivotally secured to the said whiffletree and provided at its outer end with an upwardly bent portion a^2 to pass over the trace, and with a hooked portion bent substantially at right angles to the bent portion a^2 , and a locking device for said fastening consisting of a metal piece or bar secured to the whiffletree and provided with a concavity b^1 , and with a cam surface b^2 , substantially as described.

No. 51,735. Fire Escape. (Sauveteur d'incendie.)



John Francis Percival and Arthur Edward Astley, both of Coventry, England, 24th March, 1896; 6 years. (Filed 18th February, 1896.)

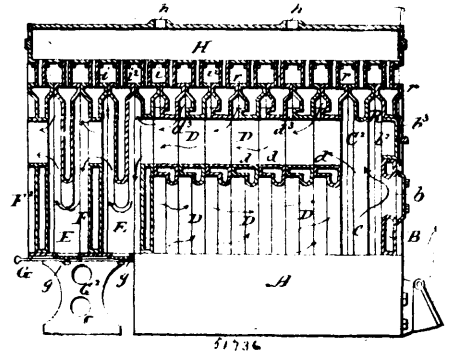
Claim.—1st. The new or improved sling and its attachments and parts forming the fire escape consisting of the part A, with its supplemental parts a^1 , and a^{11} , in combination with the belt K, to be worked through the ring R or its equivalent, substantially as and for the purpose herein set forth and shown upon the drawings. 2nd. The split sling A, ring a^6 , and rope B without the part K.

No. 50,736. Boiler. (Chaudière.)

Michael Mahoney, Troy, New York, U.S.A., 24th March, 1896; 6 years. (Filed 22nd February, 1896.)

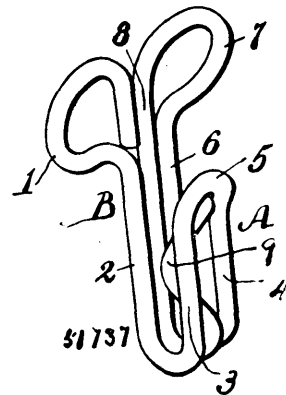
Claim.—1st. A sectional boiler consisting of the vertical hollow front section B, having a door opening b , and two openings b^2 , above the latter, the adjoining sections C, having a large central opening C^2 , the upper edge of which is on the same level as the upper edge of the openings b^2 , a series of sections D, each having two perfora-

tions d , in combination with the sections E, having pendent bodies R , and the sections F and F², having perforated bodies and arranged alternately with the boiler sections E, substantially as described. 2nd. In a sectional boiler, the combination of the vertical hollow



front section B, the adjoining sections C, having a large central opening C^2 , a series of boiler sections D, having rims r , and pendent bodies R, about half the thickness of said rim r of each section, and perforations d , through said bodies each perforation d , having a rim r^2 , whereby continuous passages are obtained through the series of sections D, substantially as described. 3rd. In a sectional boiler, the combination of the vertical hollow front section B, the adjoining section C, having a large central opening C^2 , a series of boiler sections D, having rims r , and pendent bodies R, about half the thickness of said rim r , of each section and perforations d through said bodies, each perforation having a rim r^2 , and an opening d^2 , in each rim r^2 , whereby heated gases ascending to the top of the bodies R, are directed into the perforations d , substantially as described.

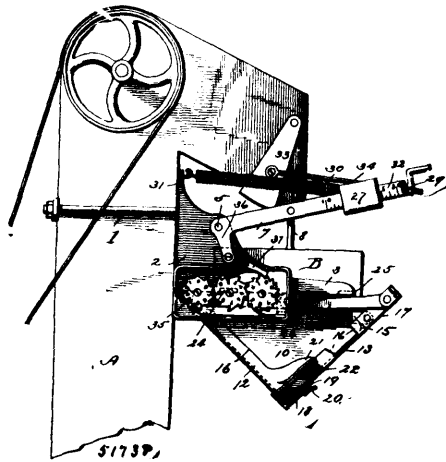
No. 51,737. Garment Hook. (Agrafe de vêtement.)



Charles C. Blossom, Brooklyn, New York, U.S.A., 24th March, 1896; 6 years. (Filed 17th February, 1896.)

Claim.—1st. A hook comprising a shank composed of three immovable parallel bars and a hook proper comprising two parallel bars, the central bar of the shank, being extended into a rearwardly directed bow which is located between the side bars of the hook proper, and the two side bars of the shank having inwardly bent loops formed thereon, all of the said parts being formed integrally with each other, substantially as shown and described. 2nd. In a fastening hook, the combination of a shank composed of three parallel bars, the two outer ones of which are extended into inwardly bent loops and the inner one of which is extended into a rearwardly directed bow, and a hook which is bent outwardly at its free end and comprises two parallel bars between which bars the said bow is located, substantially as shown and described. 3rd. The combination of the three barred shank B, having inwardly bent loops thereon and the bent hook A, and the bow 9, substantially as shown and described. 4th. The combination of a shank comprising three parallel bars and two loops, the inner one of which bars is extended into a rearwardly directed bow, and a hook, which comprises two parallel bars between which bars the said bow is located, substantially as shown and described.

No. 51,738. Grain Meter. (Compteur à grain.)



Daniel Wilde, Washington, Iowa, U. S. A., 24th March, 1896; 6 years. (Filed 23rd January, 1896.)

Claim.—In a grain meter, the combination with a movable grain hopper, of a hopper-retracting spring so disposed that when the hopper moves against the retractive action of said spring to discharge its load of grain, the superior retractive power thus gained by the spring over the opposing weight of the hopper and its contents, and which is due to the said spring being put under varying stress, will be neutralized. 2nd. In a grain meter, the combination with a grain hopper, and a hopper-frame movable therewith, of a spring-hopper-retracting device so disposed that when the hopper moves against the retracted action of the said spring device to discharge its load of grain, the superior retractive power thus gained by the spring over the opposing weight of the hopper and its contents and which is due to the said spring device being put under varying stress will be neutralized. 3rd. In a grain meter, the combination with a grain hopper, and a pivoted hopper-frame movable therewith, of spring hopper-weighing and retracting devices connected to the free end of the hopper-frame and so disposed as to lie in substantially parallel relation to the plane of the said hopper-frame when the hopper assumes its discharging position, whereby the superior retractive power thus gained by the said spring hopper-weighing and retracting devices, over the opposing weight of the hopper and its contents and which is due to the said spring hopper-weighing and retracting devices being put under varying stress, is neutralized. 4th. In a grain meter, the combination with a pivoted hopper-frame, and hopper pivoted thereto and movable therewith, of weighing and retracting spring devices, and adjusters connecting the spring devices to the free extremity of the hopper-frame, whereby the weighing and retractive force exerted thereon may be regulated. 5th. In a grain meter, a grain hopper comprising, the combination of a receptacle open at top and bottom, valves pivoted to the receptacle and adapted to normally close to form a substantially V-shaped bottom, and a lip hinged to one of the valves, and adapted to normally cover the juncture of the valves. 6th. In a grain meter, the combination of valves forming a V-shaped bottom of a grain hopper, a lip hinged to one of the valves, fingers, respectively, on the lip, and on the other valve, whereby the apex formed by the juncture of the valves when the hopper is in normal position is covered, and a stop to limit the backward movement of the lip. 7th. In a grain meter, the combination of a spring-retracted pivoted frame, a grain hopper carried by the frame, a trap-bottom formed of valves hinged to the grain hopper, toggle-levers connecting the valves, and stop devices adapted to engage with the toggle-levers to keep the valves closed when the hopper is being filled, and open when in discharging position. 8th. In a grain meter, the combination of a spring-retracted pivoted frame, a grain hopper carried by the frame, a trap-bottom formed of valves hinged to the grain hopper, a lip hinged to one of the said valves and adapted to cover the juncture of the valves when the hopper is in normal position, toggle-levers connecting the valves, lugs adapted to engage with the toggle-levers to keep the valves closed when the hopper is being filled, and open when in discharging position.

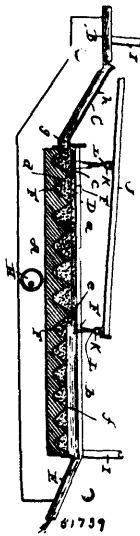
No. 51,739. Hydrostatic Electric Amalgamators.

(Amalgamateur hydrostatique électrique.)

James D. McKimmon, Portland, Oregon, U.S.A., 24th March, 1896; 6 years. (Filed 29th October, 1895.)

Claim.—1st. The herein described amalgamator comprising the approximately horizontal frame D, formed in one piece and provided with the set or series of transverse riffles *a*, having their bottoms arranged in the same plane and also having the inclined or upwardly diverging side walls and adapted to contain mercury, and the set or series of transverse riffles *b*, having their bottoms arranged in the same plane as the set *a*, and the upper edges of their inclined side-

walls in a plane below the upper edges of the side walls of set *a*, and also adapted to contain mercury, the discharge spout *E*, connected to the outer end riffle of the set *b*, and having its connected end arranged in the same plane as the upper edges of the side walls of the



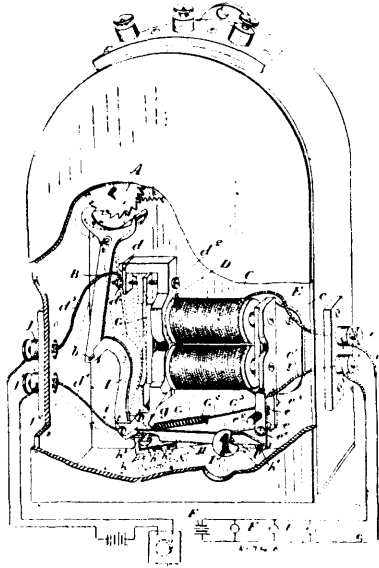
riffles *a*, the inclined hydrostatic chute *C*, connected with the outer end riffle of the series or set *a*, below the plane of the upper edge of the side wall thereof and having the head or pocket *g* at its lower end, and the forward end and side walls connected to the frame *D*, and having their upper edges arranged in a plane above the upper edges of the side walls of the riffles *a*, substantially as and for the purpose set forth. 2nd. The herein described amalgamator comprising the approximately horizontal frame *D*, provided with the set or series of transverse riffles *a*, having the inclined or upwardly diverging side walls *c*, *d* and containing mercury, and the set or series of transverse riffles *b* having the inclined or upwardly diverging walls *c*, *d* and also containing mercury and having the upper edges of their side walls arranged in a plane below the upper edges of the side walls *a*, the discharge spout *E* connected to the outer end riffle of the set *b*, and having its connected end arranged in the same plane as the upper edges of the side walls of the riffles *a*, the inclined hydrostatic chute *C* connected with the outer end riffle of the series or set *a*, below the plane of the upper edge of the side wall thereof and having the bend or pocket *g* at its lower end, the forward end and side walls connected to the frame *D*, and having their upper edges arranged in a plane above the upper edges of the side walls of the riffles *a*, the electrodes *F*, *F* adapted to contact with the mercury and the pulp and be arranged in circuit with an electric generator, and the longitudinal water pipe arranged above the riffles and extending over the two sets of riffles and having branch pipes perforated in their underside so as to spray water on the materials in or on the riffles, substantially as and for the purpose set forth.

No. 51,740. Indicating and Starting Device for Fire Alarms. (Appareil pour avertisseurs d'incendie.)

James Foster, assignee of William John Moore, both of Toronto, Ontario, Canada, 24th March, 1896; 6 years. (Filed 12th December, 1895.)

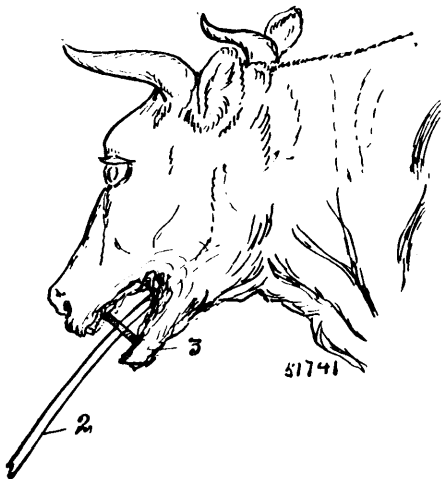
Claim.—1st. In a fire alarm box, the combination with the escapement lever, of a magnet suitably supported in the box and located in the circuit of the thermostats, a pivoted spring-held armature, an arm having its free end supported on the lower end of such armature, and a supplemental substantially L-shaped lever supported at one end on a stop pin, and having the other end engaging with the escapement lever, as and for the purpose specified. 2nd. In a fire alarm box, the combination with the escapement lever, of a magnet suitably supported in the box and located in the circuit of the thermostats, a pivoted spring-held armature, an arm having its free end supported on the lower end of such armature, a supplemental substantially L-shaped lever supported at one end on a stop pin, and having the other end engaging with the escapement lever and an indicating plate rigidly held on such lever, as and for the purpose specified. 3rd. In a fire alarm box, the combination with the escapement lever, of a magnet suitably supported in the box and located in the circuit of the thermostats, a pivoted spring-held armature provided with the hook-shaped lower end with a T-head, an arm having an L-shaped free end with a T-head supported upon the T-shaped lower end of the armature, and a supplemental substantially L-shaped lever supported at one end on a stop-pin, and having the other end engaging with the escapement lever, as and for the purpose specified. 4th. In a fire alarm box, the combination with the

escapement lever, of a magnet suitably supported in the box and located in the circuit of the thermostats, a pivoted armature, a spring and cord connecting the armature to a spring-held pin provided with suitable end knobs and suitably journalled, an arm hav-



ing its free end supported on the lower end of such armature, and a supplemental substantially L-shaped lever supported one end on a stop pin, and having the other end engaging with the engagement lever, as and for the purpose specified. 5th. The combination with the magnet and armature, and means interposed between the escapement lever and the armature for releasing such lever, of the end bar D, insulating plate *d*, pin *d*¹, wires *d*² and *d*⁴ and *j*², and the bell and battery, all arranged as specified.

No. 51,741. Device for Removing Obstructions from the Throat of Animals. (*Appareil pour enlever les obstructions dans la gorge des animaux.*)



John Perkins, Canfield, Ontario, Canada, 24th March, 1896; 6 years. (Filed 25th September, 1895.)

Claim.—The combination of the tube A, with its leaded end and the stretcher B, as and for the purpose hereinbefore set forth.

No. 51,742. Putty. (Mastic.)

Charles Alluisi, Montreal, Quebec, Canada, 24 Mars, 1896; 6 ans. (Déposé le 3 Février, 1896.)

Résumé.—Un mastic composé d'amiante, de plâtre, de colle, de blanc de Syrusse et de sulfate de Potasse, mélangés ensemble dans les proportions indiquées.

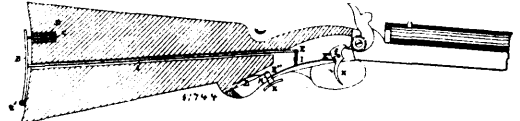
No. 51,743. Ointment. (Onguent)

Alphonse H. Goulet, Montreal, Cessionnaire de Jean Baptiste Joseph Brassard, Laprairie, Quebec, Canada, 24 Mars, 1896; 6 ans. (Déposé le 19 Décembre, 1895.)

Résumé.—Une composition de goudron, huile de terebenthine, terebenthine canadienne, huile d'olive, huile de lavende, cire et resine blanche, dans les proportions et pour les fins decrites.

No. 51,744. Safety Mechanism for Fire Arms.

(*Mécanisme de sûreté pour armes à feu.*)

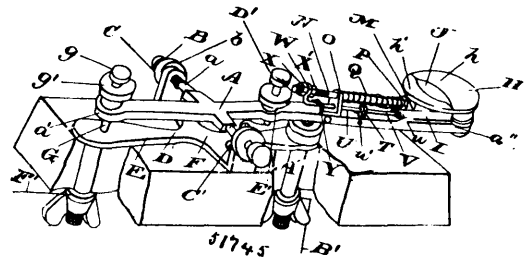


Eugène Lazard, Belgium, in Arlon, Belgium, 24th March, 1896; 6 years. (Filed 28th December, 1895.)

Claim.—1st. A safety mechanism for fire arms consisting of a rod placed longitudinally in the stock of a gun, a pivoted catch at one end of the rod engaging with a recess formed in the trigger, a plate at the butt end of the gun and a spring placed in the stock behind the plate, as and for the purpose specified. 2nd. In combination the trigger, the catch fitting into a recess therein, the rod connected to the catch and spring-held, and the spring pressed button also connected to the catch, all arranged as and for the purpose specified.

No. 51,745. Automatic Closing Telegraph Key.

(*Clé de télégraphe fermant automatiquement.*)



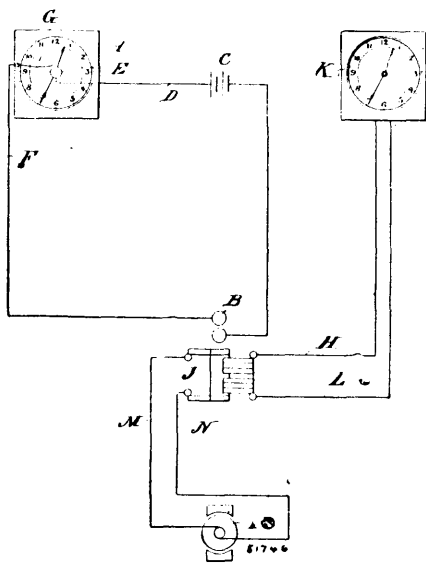
James Arthur Coleman, Perry Station, Ontario, Canada, 24th March, 1896; 6 years. (Filed 7th December, 1895.)

Claim.—1st. In a telegraphic key the combination of the key-lever a button comprised of two sections, one section connected to the key-lever, and the other section movably secured to the stationary section, a jointed lever pivotally connected to the key-lever, a contact point carried by the jointed lever and a connection between the jointed lever and the movable button section, substantially as specified. 2nd. In a telegraphic key the combination of the key-lever, a button comprised of two sections, one section connected to the key-lever, and the other movably connected to the stationary section, a pin projecting from the movable section in the same plane as the key-lever, a jointed lever pivotally connected to the key-lever, a contact point carried by the jointed lever, a connection between the pin and the jointed lever, whereby the contact point is moved by the movement of the movable section, substantially as specified. 3rd. In a telegraphic key, the combination with the transmitting contact point of a key-lever, a button, comprised of two sections, one of the sections connected to the key-lever, the other section movably connected to the stationary section, a pin, one end of which is connected to the movable button section, a lug supporting the middle of the pin, a spring coiled on the pin and bearing against the lug and the movable button section, a jointed lever pivotally connected to the key-lever, a contact point carried by the jointed lever normally engaging with the transmitting contact point, and a connection between the movable section and the jointed lever, whereby the circuit is made or broken through the contact points, substantially as specified. 4th. In a telegraphic instrument, the combination of the transmitting contact point, a key-lever, a finger button comprised of two sections, one of which is connected to the key-lever, and the other movably connected to the stationary section, a pin in the same plane as the key-lever, one end of the pin connected to the moveable button section, a lug connected to the key-lever, supporting the middle of the pin, a set nut located on the pin between the lug and the movable section, a spring coiled on the pin between the lug and the nut, a jointed lever pivotally connected to the key-lever a contact point carried by the jointed lever, normally engaging the transmitting contact point, and a connection between the pin and

the jointed lever, whereby the jointed lever is operated by the movement of the movable button section, substantially as specified. 5th. In a telegraphic key, the combination of the transmitting contact point, the key-lever, a finger button comprised of two sections, one section connected to the key-lever, and the other section movably connected to the stationary section, a pin, one end of which is connected to the movable section, a jointed lever pivotally connected to the key-lever, a contact point carried by the jointed lever, normally engaging with the transmitting contact point, a lug connected to that end of the jointed lever next the finger button, the said lug projecting through the key-lever, a pin passing through the said lug, an enlarged head for that end of the pin next the finger button, a spring coiled on the pin between the head and the lug, the opposite end of the pin provided with an eye through which passes the pin connected to the movable section of the finger button, and a nut on the said pin on each side of the said eye, to adjust the position of the button sections, substantially as specified.

No. 51,746. Electric Time Indicator.

(Indicateur horaire électrique.)



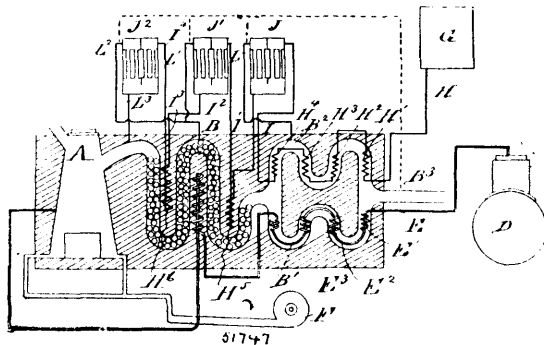
John Joseph Wright, Toronto, Ontario, Canada, 24th March, 1896; 6 years. (Filed 12th August, 1895.)

Claim.—1st. The method of and apparatus for transmitting time electrically by intermittently actuating an electro magnet at definite chronometric intervals by closing a circuit by means of a master clock so as to actuate mechanism whereby electrical currents of alternating polarity are transmitted in a main circuit so as to actuate a time indicating mechanism at a distant station, which is responsive only when the polarity of the current is so changed, substantially as specified. 2nd. In an electric time indicator, a main circuit including an electrically operative clock mechanism and a transmitter controlling the passage of currents through the said circuit in combination with a secondary circuit, including a master clock adapted to close and open the circuit at regular intervals and a device adapted to start and stop the transmitter each time the secondary circuit is closed and opened by the master clock, substantially as described and for the purpose specified. 3rd. In an electric time indicator, a main circuit, a clock mechanism in the said circuit responsive only each time the polarity of the current in the circuit is changed, and a transmitter adapted to effect such changes in the polarity of the current in the said circuit, in combination with a secondary circuit, including a master clock adapted to close and open the circuit at regular intervals, and a device adapted to start and stop the transmitter each time the secondary circuit is closed by the master clock, substantially as described and specified. 4th. In an electric time indicator, a main circuit, a clock mechanism in the said circuit, responsive only each time the polarity of the current in the circuit is changed, a revoluble commutator suitably driven and arranged to effect such changes in the polarity of the current in the said circuit, and arms rigidly connected to the end of the commutator spindle, in combination with a secondary circuit, a master clock in the said circuit adapted to close and open the circuit at regular intervals, and an electro magnet in the said circuit, having its armature so pivoted that its end is normally in a position to engage with one of the arms on the commutator spindle, but is withdrawn from engagement therewith when the electro magnet is energized by the closing of the secondary circuit by the master clock, substantially as described and specified. 5th. In an electric time indicator, a main circuit, an electro magnet in the said circuit, a revoluble polarized armature pivoted between the poles of the electro magnet, a clock

train driven from the spindle of the armature, a revoluble commutator suitably driven and arranged to effect such changes in the polarity of the current in the said circuit and arms rigidly connected to the end of the commutator spindle, in combination with a secondary circuit, a master clock in the said circuit adapted to close and open the circuit at regular intervals, and an electro magnet in the said circuit having its armature so pivoted that its end is normally in a position to engage with one of the arms on the commutator spindle, but is withdrawn from engagement therewith when the electro-magnet is energized by the closing of the auxiliary circuit by the master clock, substantially as described and for the purpose specified. 6th. In an electric time indicator, a transmitter comprising the following elements:—a revoluble commutator adapted to change at regular intervals the polarity of the currents transmitted through the line wire, a driving train adapted to revolve the commutator, brushes bearing on the commutator and connected with the source of current, brushes bearing on the commutator and connected with the distant clock-mechanism, and arms on the commutator spindle, which are adapted to engage with the armature of a controlling electro-magnet, substantially as described and for the purpose specified. 7th. In an electric time indicator, an electro-magnet, a revoluble polarized armature pivoted between the poles of the magnet, a worm formed on the spindle of the armature and engaging with a worm-wheel on the centre arbour of a clock train, substantially as described and for the purpose specified. 8th. In an electric time indicator, a master clock provided with contact-pieces on the centre arbour, and a platinum contact spring with its end arranged in the path of the contact-pieces and adapted to close a secondary circuit, and cause electrical impulses to pass at regular intervals over said circuit to actuate mechanism whereby a commutator, connected with the source of current, may be set free to rotate by means of weight-driven gearing and stopped after the said circuit is opened after making a-half revolution so as to send alternately reversed currents over a main circuit and actuate a time indicating mechanism at a distant station, responsive only when the current is so changed, substantially as described and for the purpose specified.

No. 51,747. Process of Manufacturing Gas.

(Procédé pour la fabrication du gaz.)

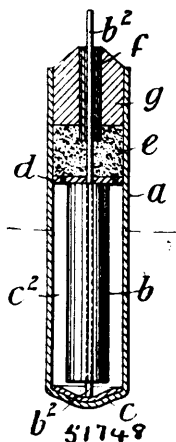


Ezra S. Hoyt, Detroit, Michigan, U.S.A., 24th March, 1896; 6 years. (Filed 6th November, 1895.)

Claim.—1st. In the manufacture of gas, the method of enriching gas obtained from other sources with petroleum oil, which consists in separately and continuously generating vapours from petroleum oil by heating a current of oil at increasing temperature, separating from the heated current vapours generated from the oil at such temperature at which the constituents of the oil are converted into fixed vapours, in separating the fixed vapours from the oil and condensable vapours by cooling and then combining the fixed vapours with the gas to be enriched at substantially the temperatures at which such vapours became fixed, substantially as described. 2nd. In the manufacture of gas, the method of enriching the hot gases from the generator with petroleum oil, which consists in continuously generating from petroleum the fixed vapours of the constituents of the oil by subjecting a current of oil to vaporization in a series of heaters at increasing temperatures, corresponding to the temperatures at which the constituents of the oil are successively converted into fixed vapours, in separating the fixed vapours of such constituents from the oil and other vapours, and then introducing and combining such fixed vapours separately into the hot gases at specified temperatures approximating respectively the same as that at which such vapours became fixed, substantially as described. 3rd. In the manufacture of gas, the method of enriching the hot gases from a generator with the fuel oil, which consists in conducting the hot gases from the generator through a conduit in contact with refractory material, in passing a current of oil through a series of heaters in suitable contact with the hot gases from the generator to heat the oil successively in the heaters to the temperatures at which the constituents of the oil are separately converted into fixed vapours, in separating the fixed vapours generated in each heater from the oil and other vapours, and in introducing such fixed vapors into the conduit in contact with the hot gases respectively where the temperature is approximately

that at which such vapours became fixed. 4th. In the manufacture of gas, the method of enriching the hot gases from the generator, which consists in conducting the same through a conduit in contact with refractory material and thereby storing the heat, in passing a current of oil in opposite directions to the flow of the hot gases through a series of heaters and heating it with the stored heat successively in the different heaters to the temperature at which the constituents of the oil are converted into permanent vapours in cooling the vapours from each heater and carrying the product of condensation into the next heater, and in introducing the remaining vapours into the heated conduit and combining them with the hot gases at points where the temperatures are substantially that at which such vapours became fixed, substantially as described. 5th. The continuous process of manufacturing gas, which consists in blasting bituminous coal to incandescence, introducing air and superheated steam, storing the heat of the hot products in a regenerating chamber containing refractory materials, in subjecting a current of petroleum oil alternately to the heat of the hot products at temperatures at which the constituents of the oil are separately converted into fixed vapours and to cooling in a condenser, and in introducing the fixed vapours obtained after each cooling into the hot products at approximately the temperature at which the vapour became fixed, substantially as described. 6th. The continuous process of manufacturing gas which consists in blasting coal in a single generating chambers and storing the heat of the hot products in a regenerating chamber containing refractory material, in subjecting a current of steam and one of petroleum oil to the heat of the hot products at gradually increasing temperatures and thereby superheating steam and generating vapours of petroleum, in introducing the superheated steam into the generator, and decomposing it in contact with the fuel, in separating from the petroleum oil, the fixed vapours generated at a temperature at which the constituents of the oil are successively converted into fixed vapours, in introducing said vapours into the regenerating chamber and combining them with the products from the generator at temperatures substantially that by which the vapours became fixed, and in subjecting the residum of the oil directly to the action of the hot products from the generator, substantially as described.

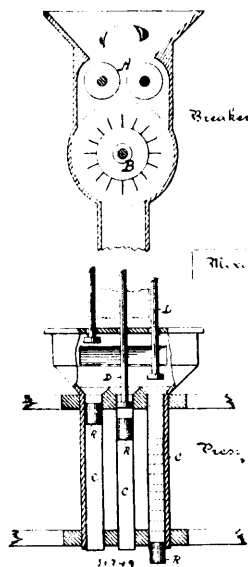
No. 51,748. Electric Battery. (Pile électrique.)



Charles James Wollaston, London, England, 24th March, 1896; 6 years. (Filed 31st July, 1895.)

Claim.—1st. In a galvanic battery, the combination with a receptacle or capsule made of or lined with zinc forming one element of the battery and containing chloride of silver constituting the other element of the battery, a suitable excitant and a stopper of cam or its equivalent, substantially as and for the purpose described. 2nd. In a galvanic battery, the combination of a receptacle or capsule made of or lined with zinc forming one element of the battery and containing chloride of silver constituting the other element of the battery a suitable excitant and a filler of slag wool, substantially as and for the purpose described. 3rd. In or for a chloride of silver battery an excitant consisting of wood flour or its equivalent mixed with a solution of Irish Moss or its equivalent and chloride of ammonium, sodium chloride or caustic soda or the like, substantially as and for the purpose described. 4th. In a chloride of silver battery, an element consisting of a vessel or capsule containing coils of zinc wire, substantially as and for the purpose described.

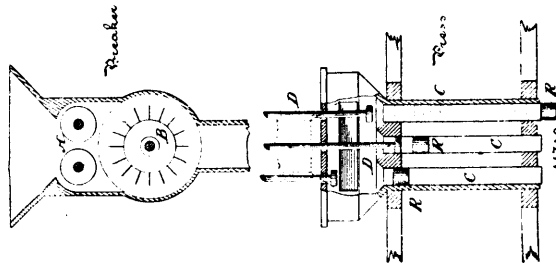
No. 51,749. Reduction of Metallic Sand and Pulverized Ore. (Réduction de sable métallique et minerai pulvérisé.)



Archibald Anderson Dickson, Toronto, Ontario, Canada, 24th March, 1896; 6 years. (Filed 11th April, 1895.)

Claim.—1st. The method or process of reducing metallic sands or pulverized ores, which consists, essentially, in mixing the sand, or ore, with peat, then compressing the combined materials into blocks then carbonizing such blocks in a retort to eliminate the volatile elements, and finally subjecting such carbonized blocks to the action of fire in a reducing furnace for the recovery of the metals, substantially as set forth. 2nd. The method or process of reducing metallic sands, or pulverized ores, in connection with peat as a binding and combustible material, which consists essentially, in first drying the peat sufficiently to deprive it of all but the atmospheric degree of moisture, then finely dividing such peat, then incorporating or mixing the metallic sands, or pulverized ores with such peat, then compressing the incorporated materials, while cold, into blocks, in a forming tube or mold by a uniform pressure, then eliminating the volatile elements from such blocks by carbonization in a retort, and finally subjecting such carbonized blocks to the action of fire in a reducing furnace to recover the metals, substantially as set forth. 3rd. As a new article of manufacture a non-friable block of combined peat charcoal and metallic sand, or pulverized ore, as specified. 4th. As a new article of manufacture, a block composed of peat deprived of its volatile elements by carbonization, and metallic sand or pulverized ore, the same being rendered non-friable by pressure applied to the combined materials previous to carbonization, as specified.

No. 51,750. Treatment of Peat for the Manufacture of Charcoal. (Traitement de la tourbe pour la fabrication du charbon de bois.)

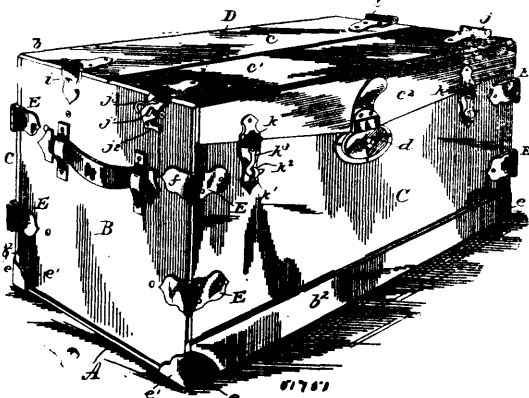


Archibald Anderson Dickson, Toronto, Ontario, Canada, 25th March, 1896; 6 years. (Filed 11th September, 1895.)

Claim.—1st. The art or method of manufacturing charcoal from peat, which consists, essentially, in the following operations, viz.:—drying until all but the atmospheric degree of moisture is eliminated from the raw peat, finely dividing the dry material, cooling, and then compressing such dry and cold material into blocks in a forming tube or mould, in such manner that a uniform pressure is applied to each charge of peat irrespective of its quantity or density, and finally charring, or carbonizing said blocks to an extent sufficient to liberate the constituent volatile elements, substantially as set forth.

2nd. As a new article of manufacture of a non-friable block of peat charcoal, as described. 3rd. As a new article of manufacture, a block of peat charcoal, condensed by pressure and deprived of the volatile elements indigenous to the peat, by charring, or carbonizing, substantially as set forth.

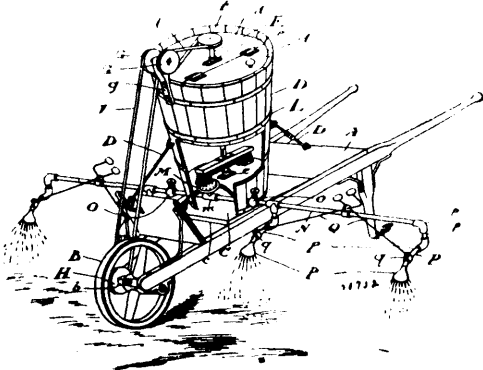
No. 51,751. Knockdown Case. (Caisse pliante.)



Mary M. Cleckley, Augusta, Georgia, U.S.A., 25th March, 1896; 6 years. (Filed 28th June, 1895.)

Claim.—In a knockdown case, the combination with the bottom, sides and ends hinged thereto, hasps made in two leaves hinged together located at the corners of the case, and fastening devices inside for engaging said hasps from the inside of the case, whereby to lock the adjacent edges of the ends and sides together, of a cover hinged to one of the sides, said cover made in two or more sections hinged together, one section having hasps, devices inside of the case for fastening these hasps, and another section having hasps which fasten on the outside of the case whereby one section is unfastened from the outside and the other from the inside, substantially as set forth.

No. 51,752. Sprinkler for Potatoes. (Arrosoir pour patates.)



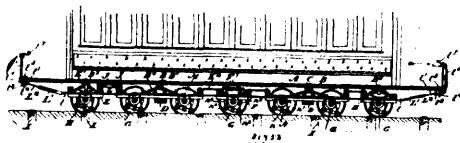
Thomas Laughlin, New Lowell, Ontario, Canada, 25th March, 1896; 6 years. (Filed 27th May, 1895.)

Claim.—1st. In a sprinkler, the combination of a tank mounted on and secured to a wheelbarrow, a rotatable spindle journaled in the tank and suitably driven from the wheel axle, a brush attached to the spindle and designed to stir up the fluid mixture within the tank, a transverse supply pipe communicating with the interior of the tank and provided with discharge arms, substantially as described and for the purpose specified. 2nd. In a sprinkler, the combination of a tank so mounted on and secured to a wheelbarrow as to be approximately vertical when the sprinkler is in use, a rotatable spindle centrally journaled in the tank and driven by gearing connected with the wheel axle, a rotatable brush attached to the lower part of the spindle and designed to stir up the fluid mixture within the tank and keep the exit orifices in the strainer clear, a transverse and adjustable supply pipe communicating with the interior of the tank and provided with stop valves and adjustable discharge arms carrying spraying nozzles, substantially as described and for the purpose specified. 3rd. In a sprinkler, the combination with the tank D, and wheelbarrow A, of the adjustable transverse supply pipe N communicating with the interior of the tank, the stop valves O, the adjustable discharge arms P, the spraying nozzles P¹, and adjusting rods Q, substantially as described and for the purpose specified. 4th. In a sprinkler, the combination with the tank D, braces D¹, and wheelbarrow A, of the verticle spindle E, journaled centrally at e, e¹, the grooved spindle pulley F, the grooved transmitting

pulleys G, G¹, journaled on the bracket g, the grooved driving pulley H, on the wheel axle b, the spindle belt I, driving belt J, stirring brush L, strainer M, with exit orifices m, the transverse supply pipe N, and means for spraying the fluid mixture passing through the supply pipe, substantially as described and for the purpose specified. 5th. In a sprinkler, the combination of the wheelbarrow A, the tank D, cover d, and hinged lid d¹, and braces D¹, the wedge-shaped stand C, the vertical rotatable spindle E, centrally journaled at e, e¹, the spindle pulley F, transmitting pulleys G, G¹, journaled on the bracket g, driving pulley H, on the wheel axle b, spindle belt I, driving belt J, rotatable stirring brush L, strainer M, and exit orifices m, the transverse supply pipe N, stop valves O, adjustable discharge arms P, spraying nozzles P¹, and adjusting rods Q, substantially as described and for the purpose specified.

No. 51,753. Electric Motor for Cars.

(Moteur électrique pour chars.)



Archibald H. Brintnell, Toronto, Ontario, Canada, 25th March, 1896; 6 years. (Filed 30th April, 1895.)

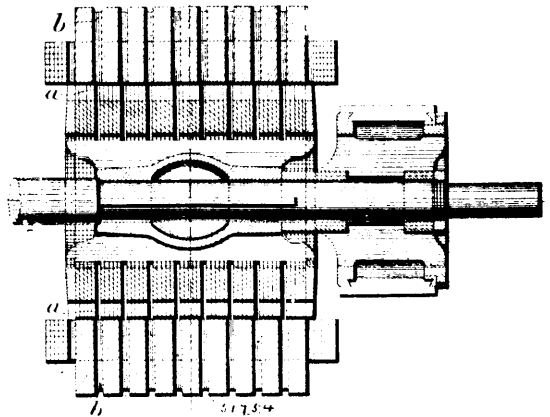
Claim.—1st. A system for electrical propulsion of cars comprising a motor, the armatures of which consists of a series of pairs of drums connected with the axles of the car and the field magnets of which are located in the road-bed and substantially flush therewith and are designed to exert a magnetic pull on the drum armatures through the current successively switched into them, so that such drum armatures will have a rolling contact over the magnets as and for the purpose specified. 2nd. A system for electrical propulsion of cars comprising a series of pairs of drum armatures secured on the axles of the car, which are located equi-distant from each other, a series of field magnets the tops of of the cores of which are substantially flush with the rod-bed in the paths of the drum armatures and are equi-distant from each other a series of travellers pivoted directly beneath the axles of the cars and designed to co-act with a commutator switch suitably inclosed and having the top substantially flush with the rod-bed to close the main circuit through such field magnet as the drums approach the ends of the cores as and for the purpose specified. 3rd. The combination with the magnets situated in the road-bed and substantially flush therewith and the armatures designed to have a rolling contact with the ends of the cores of the magnets as specified, of pivoted travellers corresponding in number to the drum armatures, a switch box and co-acting mechanism in the same operated by each successive traveller to throw in the switch and cause the current to travel from the main wire through the magnets as and for the purpose specified. 4th. The combination with the magnets situated in the road-bed and substantially flush therewith and the armatures designed to have a rolling contact with the ends of the cores of the magnets as specified, of pivoted travellers corresponding in number to the drum armatures a switch box provided with a flexible chain bridge designed to be depressed by the traveller as it passes over it and means whereby the depression of such chain of each successive switch box throws in the switch and causes the current to travel from the main wires through the magnets, as and for the purpose specified. 5th. The combination with the magnets situated in the road-bed and substantially flush therewith and the armatures designed to have a rolling contact with the ends of the cores of the magnets as specified, of pivoted travellers corresponding in number to the drum armatures, a switch box and mechanism co-acting with the travellers and means for holding the corresponding ends of the travellers at the same time in proximity to the ground, as and for the purpose specified. 6th. The combination with the magnets situated in the road-bed and substantially flush therewith and the armatures designed to have a rolling contact with the ends of the cores of the magnets as specified, of pivoted travellers corresponding in number to the drum armatures, a switch box and mechanism co-acting with the travellers and a universally jointed rod extending from end to end of the car and connected by chains to both ends of the travellers and means for turning such rod as and for the purpose specified. 7th. The combination with the magnets situated in the road-bed, and substantially flush therewith and the armatures designed to have a rolling contact with the ends of the cores of the magnets as specified, of pivoted travellers corresponding in number to the drum armatures, a switch box and mechanism co-acting with the travellers and a universally jointed rod extending from end to end of the car and connected by chains to both ends of the travellers and the square bar socket E¹, square rod E², universal joint F¹, spindle E², bevel pinions F¹, F², rod F³, crank handle G¹, all arranged as and for the purpose specified. 8th. The combination with the car provided with armatures, and the road-bed provided with magnets, the ends of the cores of which are flush therewith, of the travellers, flexible chain bridge supported upon the spring-like block Q¹, and connected by links Q², to the block Q³, the links S, lever T, provided with carbon rollers t², at each side, the two pairs of quadrantal

plates U, and U¹, insulated from each other and electrical connections from the main circuit wires to the quadrantal plates U, and from the quadrantal plates U¹, to and through the magnets, as and for the purpose specified. 9th. The combination with the car provided with armatures, and the road-bed provided with magnets, the ends of the cores of which are flush therewith, of the travellers flexible chain bridge supported upon the spring-held block Q¹, connected by links Q², to the block Q³, the links S, lever T, provided with carbon rollers t², at each side, the two pairs of quadrantal plates U, and U¹, insulated from each other, the carbon blocks U², situated in the depressions of the quadrantal plate U¹, and electrical connections from the main circuit wires to the quadrantal plates U, and from the quadrantal plates U¹, to and through the magnets, as and for the purpose specified. 10th. The combination with the car provided with armatures and the road-bed provided with magnets, the ends of the cores of which are flush therewith, of the travellers flexible chain bridge supported upon the spring-held blocks Q¹, connected by links Q², to the block Q³, the links S, lever T, provided with carbon rollers t² at each side, the two pairs of quadrantal plates U and U¹, insulated from each other, the metal loop-shaped contact strips T² on the end of the lever T, the commutator sections V, and resistance coils V¹, and electrical connections from the main circuit wires to the quadrantal plates U, and from the quadrantal plates U¹, to and through the magnets, as and for the purpose specified. 11th. The combination with the car provided with armatures and the road bed provided with magnets, the ends of the cores of which are flush therewith, of the travellers flexible chain bridge supported upon the spring held block Q¹, connected by links Q² to the block Q³, the links S, lever T provided with carbon rollers t² at each side, the two pairs of quadrantal plates U and U¹, insulated from each other, the metal loop-shaped contact strips T² on the end of the lever T, the commutator sections V, and resistance coils V¹, and the horse shoe magnets having the two poles opposite the two lower commutator sections, and electrical connections from the main circuit wires to the quadrantal plates U, and from the quadrantal plates U¹, to and through the magnets as and for the purpose specified. 12th. The combination with the car provided with armatures, and the road bed provided with magnets, the ends of the cores of which are flush therewith, of the travellers flexible chain bridge supported upon the spring held block, Q¹ connected by links Q² to the block Q³, the links S, lever T provided with carbon rollers t² at each side, the two pairs of quadrantal plates U and U¹ insulated from each other, the metal loop-shaped contact strips T², on the end of the lever T, the commutator sections V, and resistance coils V¹, and the horse shoe magnets having the two poles opposite the two lower commutator sections, the wires 6 connecting the positive and negative wires of the main circuit to their corresponding quadrantal plates U, the wires 7 leading from the quadrantal plates U¹, to and through the coils of the horse shoe magnet I, and through the commutator sections V, and resistance coils V¹, as and far the purpose specified. 13th. The combination with the armatures, magnets and travellers, of the divided cap plate O⁵, provided with a straight passage-way O⁶, and the flexible chain bridge P, formed and held by trunnions at each end and switch mechanism operated therefrom, as and for the purpose specified. 14th. In a system such as described, the combination with the switch box having the cap plates O⁵, and central passage-way O⁶, of the chain P, each link of which has upwardly extending sides and is connected to the adjacent link by trunnions extending into holes in such link, as and for the purpose specified. 15th. In a system such as described, the combination with the switch box having the cap plates O⁵, and central passage-way O⁶, of the chain P, each link of which has upwardly extending sides and is connected to the adjacent link by trunnions extending into holes in such link, and a leather covering extending around the bottom and sides of the chain and held in position there by the teats, p⁵, as and for the purpose specified. 16th. In a system such as described the switch box provided with the chain bridge located as specified, of the circular flange, O², circular ring, O⁴, with downwardly extending flange, o⁴, the circular leather and the springheld vertical block, Q¹, and its connections all operating as and for the purpose specified. 17th. In a switch box for the purpose specified, the combination with the top circular flanges of a circular plate provided with downwardly extending flange, o, fitting within a recess, o¹, and a flexible tube packing, o², inserted in the recess as and for the purpose specified. 18th. In a system such as described a car provided with four wheel trucks connected to the cross beam of the car by king bolts and having supporting elliptical springs situated between the cross beams and resting on the trucks and two wheel trucks supporting the car by means of rollers journalled upon the top of elliptical springs and designed to support the car by and having a rolling contact with plates extending across the cars underneath the body as and for the purpose specified. 19th. The combination with the trucks, D, E, F, of the triangular plates, J, pivotally connected to the four wheel trucks and rigidly connected to the outer two wheel trucks and the adjustable frames, K, supported on the central truck F, and having friction rollers, k, the guide bar, K¹, bars, K², pivotally connecting the frames, K, to the pivot bolts on the four wheel trucks as and for the purpose specified. 20th. The combination with the drum armatures and magnets arranged as specified, of the coils, g, connected to and supported upon the hubs of the drum armatures and means for carrying the induced current from the coils to the lamp circuit as and for the purpose specified. 21st. The combi-

nation with the drum armatures and magnets arranged as specified, of the coils connected to and supported upon the hubs of the drum armatures and connected by wires to metallic rings insulated from the shaft and the brushes, g², suitably supported on the truck and connected by the wires, g⁶, to the lamp circuit as and for the purpose specified. 22nd. The combination with the horse shoe field magnets formed as specified, of the casing, I¹, cross bars, I², lugs, i, and bolts, i², as and for the purpose specified. 23rd. The combination with the magnets situated in the road-bed and substantially flush therewith and the armatures designed to have a rolling contact with the ends of the cores of the magnets as specified, of pivoted travellers provided with horse shoe magnets at each end and a switch box having a plate hinged beneath the top and connecting mechanism between such plate and the lever, T, for throwing in the current as and for the purpose specified. 24th. The combination with the magnets situated in the road-bed and substantially flush therewith and the armatures designed to have a rolling contact with the ends of the cores of the magnets as specified, of pivoted travellers N, provided with horse shoe magnets, W, switch box, O, provided with a top, O⁵, plate, X, hinged beneath the top, x¹, rod, x², lever, x³, mercury cup, Y, bent strip, y, binding post y¹, wire, y⁴, solenoid, Z, having its plunger, z, connected by the link, z¹, to the lever T, and wire, y⁶, the wires, y⁴, and y⁵, being connected to the main circuit wires as shown and for the purpose specified.

No. 51,754. Dynamo Electric Machine.

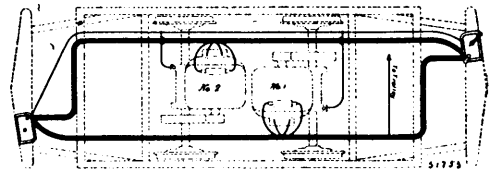
(Machine dynamo électrique.)



Henry Chitty, 5 Bolton Gardens, Chiswick, England, 25th March, 1896; 6 years. (Filed 1st March, 1894.)

Claim.—1st. A dynamo electric machine having an armature with ventilation passages left at intervals between its conductors and between groups of the plates of which it is built up, and field magnets with corresponding ventilation passages through their pole pieces, substantially as and for the purpose set forth. 2nd. A dynamo electric machine having an armature with ventilation passages left at intervals between its conductors which are held in recesses or channels in the core, and between groups of the plates of which it is built up and having field magnets with corresponding ventilation passages through their pole pieces, substantially as and for the purpose set forth.

No. 51,755. Electric Brake. (Frein électrique.)

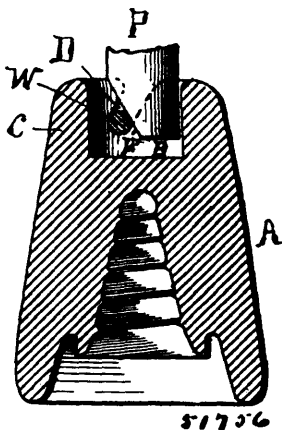


Arthur Knox Bonta, Hoboken, New Jersey, U.S.A., 25th March, 1896; 6 years. (Filed 5th August, 1895.)

Claim.—1st. In an electric car, the combination of a propelling motor or motors, a controller stand located on the motorman's platform and containing a car controlling switch and a separate reversing switch, the latter consisting of a cylinder having three sets of contact points thereon and a set of stationary fingers or terminals with which said sets of contact points are adapted to engage, one set establishing connections to send the car forward, another set to send the car backward, and the third set to reverse the relation of the field magnet and armature connections and establish a closed local circuit in which the terminals of the motor or motors will be connected in series, substantially as described. 2nd. In an electric car, the combination of a propelling motor or motors, a controller stand located on the motorman's platform and containing a car controlling switch and a separate car reversing switch, the latter consisting of a

cylinder having three sets of contact points thereon and a set of stationary fingers or terminals with which said sets of contact points are adapted to engage, one set establishing connections to send the car forward, another set to send the car backward, and the third set to establish a closed local circuit in which the terminals of the motor or motors will be connected together for the purpose set forth. 3rd. In an electric car, the combination of two propelling motors, a controller stand located on the motorman's platform, said controller stand containing two circuit changing cylinders, one for reversing and one for varying the speed, a short circuit including both motors, a circuit controller for said short circuit located upon said reversing cylinder, and a lever for operating said reversing cylinder, the lever having two stops one of which is adjustable. 4th. In an electric car, two propelling motors, a controller stand located on the motorman's platform, as controller located in said stand and conductors leading from the motor to terminals on said stand whereby the speed of the motors may be changed, all in combination with a reversing switch located in said stand and controlling the course of the current over said conductors, the reversing switch having extra contacts by means of which the motors may be thrown into a closed local circuit, substantially as described. 5th. In an electric car, two propelling motors, a controller stand located on the motorman's platform, a controller located in said stand and conductors leading from the motors to terminals on said stand whereby the speed of the motors may be changed, all in combination with a reversing switch located in said stand and controlling the course of the current over said conductors, the reversing switch having extra contacts by means of which the motors may be thrown into series in a closed local circuit which local circuit includes the said conductors leading from the motors to the controlling stand.

No. 51,756. Insulator. (Isoloir.)



William Dibb and Albert Vickers, both of Syracuse, New York, U.S.A., 25th March, 1896; 6 years. (Filed 9th December, 1895.)

Claim.—1st. An insulator having a cavity in its upper end, slots in the wall of said cavity to receive the line-wire, and a plug to press said wire against one side of said cavity. 2nd. In combination with an insulator having a central cavity in its upper end, provided with similar opposite slots in the wall, a plug to kink the line-wire, and automatically to pinch it with gradually increasing pressure when strain is applied to the wire, substantially as described and shown. 3rd. In combination with an insulator having a central cavity in its upper end and similar opposite slots in the wall thereof, a plug so proportioned to the size of the cavity that in its normal position the distance between the plug and the side of the cavity is substantially equal to the diameter of the wire, but when the plug is rolled in either direction by a strain on the wire this distance decreases, substantially as described and shown. 4th. In combination with an insulator having a cavity in its upper end provided with similar opposite inclined slots in the wall thereof, a plug to kink the line-wire and automatically to pinch it with gradually increasing pressure under strain, substantially as described and shown. 5th. As an article of manufacture, an insulator having a central cavity B, provided with opposite slots in its side wall, and with sides 4 and 5 not parallel to each other, in combination with a plug having a bevelled end, substantially as described and shown.

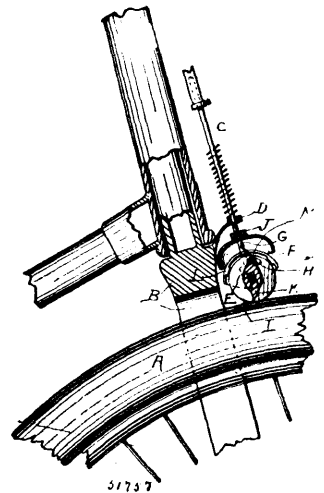
No. 51,757. Bicycle Bell Actuating Brake.

(*Frein pour cloches de bicycles.*)

William A. Hay, San Francisco, California, U.S.A., 25th March, 1896; 6 years. (Filed 17th February, 1896.)

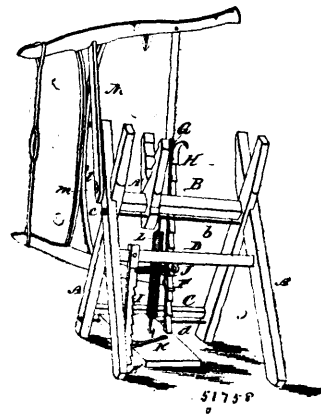
Claim.—1st. A bell actuating brake attachment for bicycles comprising a slidable rod having a yoke-shaped lower end, a bell fixed within said yoke and provided with a hammer and a wheel mounted in said yoke below the bell, having arms adapted to operate the

hammer of the bell when said wheel is forced into contact with the tire or rim of the bicycle. 2nd. A bicycle bell actuating brake consisting of a plunger rod slidable in guides to and from the periphery of the bicycle-wheel having a yoke fixed at its lower end, a bell fixed



within said yoke and a hammer or clapper fixed upon one end of a bell-crank lever which is fulcrumed to a stem within the bell, a wheel having one or more arms and a shaft journalled in vertical slots in the lower end of the yoke, so that it is movable upwardly when the yoke is depressed to bring it into contact with the bicycle wheel rim, the arms upon the opposite side from the wheel rim striking the other end of the bell-crank lever whereby the hammer is caused to strike the bell. 3rd. A bell actuating brake attachment for bicycles consisting of a frame or yoke movable to or from the tire or periphery of the wheel having a wheel movably journalled in the lower end of the yoke and provided with one or more arms, a bell fixed above said wheel, a hammer upon a pivoted bell-crank lever so disposed that the oscillations of the lever will cause the hammer to strike the bell, the opposite arm of the lever forming a contact with the arms of the movable wheel so that when the yoke is depressed the wheel will be caused to rotate and its arms act to move the bell hammer, and a further depression of the wheel will lock the same against the tire and prevent its rotation so that it serves as a brake. 4th. The combination, with a vehicle wheel of a slidable plunger rod, a fork or yoke fixed to its lower end, and armed wheel movably journalled in the lower end of the yoke, and adapted to contact with the vehicle wheel when depressed or to be withdrawn therefrom, a bell having a screw shank passing up through the centre by which it is removably fixed in the fork crown, and a bell crank lever, the angle of which is fulcrumed in the lower end of the bell holding shank, said lever having one end provided with a hammer and the other adapted to be moved by contact of the intermediate wheel with the vehicle wheel.

No. 51,758. Saw Buck. (Chevalet.)



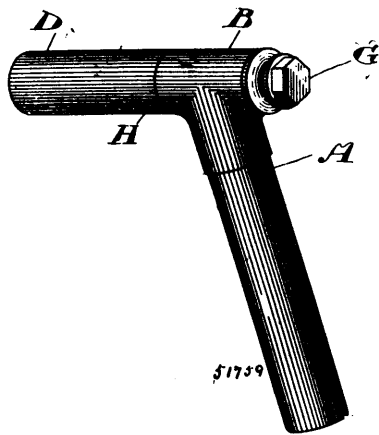
Albert Clymer, Olin, Iowa, U.S.A., 25th March, 1896; 6 years. (Filed 11th February, 1896.)

Claim.—1st. The combination with the foot-lever of a saw-buck, of the rigidly attached, notched arm F having stirrup F', and spring a, the hook-bar H having stirrup-shaped pawl h, and the rod G for disengaging the pawl and adjusting the hook-bar, as described.

2nd. The combination of the sawbuck, substantially as described, the saw support M, having slotted hole *m* and notch *p*, the stud I attaching the arm to the sawbuck frame, a notch in the upper end of one of the crotch-pieces, and a stud on the arm to engage therewith, substantially as described.

No. 51,759. Post Bar for Bicycle Saddles.

(*Barre pour selles de bicycless.*)

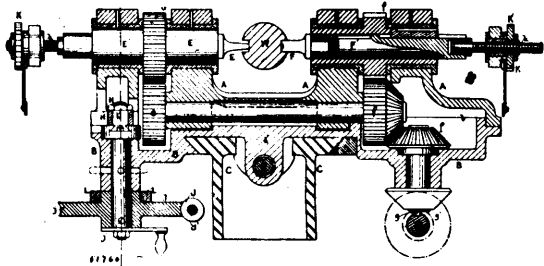


Edward Mushing and George Gilbert, both of West Orchard, Warwick, England, 25th March, 1896; 6 years. (Filed 6th February, 1896.)

Claim.—1st. In a bicycle, the combination of a horizontal hollow tube connected to the upper end of the saddle-post, a saddle post bar adapted to enter the horizontal tube from either end and provided with a shoulder to butt against either end of the said horizontal tube, means to prevent the saddle post bar turning in the horizontal tube and a set screw bearing against the other end of the horizontal tube and screwed into the end of the saddle post bar, substantially as and for the purpose specified. 2nd. The combination of the saddle post A, the horizontal tube B grooved at C, the saddle post bar D having one end turned smaller than the other so that a shoulder H is formed thereon, the pin E, and the set screw G threaded into the end of the saddle post bar D, substantially as and for the purpose specified. 3rd. The combination of the saddle post A, the horizontal tube B, grooved at C, the saddle post bar D having one end turned smaller than the other so that as houlder H is formed thereon, the pin E, and the set screw G threaded into the end of the saddle post bar D, and having a portion of its head turned to fit the interior of the horizontal tube B so that a shoulder is formed to butt against the end of the said tube, substantially as and for the purpose specified.

No. 51,760. Slot Drilling Machine.

(*Machine à percer une mortaise.*)

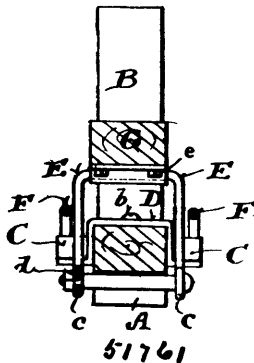


John Collinson Harrison, Bowness-on-Windermere, England, 25th March, 1896; 6 years. (Filed 4th February, 1896.)

Claim.—1st. In a slot drilling machine, the combination with a horizontal bed C, of a sliding saddle B, sliding to and fro thereon, and an oscillating drill head A pivoted upon the upper side of the sliding saddle. 2nd. In a slot drilling machine, the combination with a horizontal bed of a sliding saddle B, resting thereon an oscillating drill head pivoted to the sliding saddle two drill spindles E¹ and F¹, carried in journals in the drill head and two drills E and F, set opposite each other and operating on different sides of

the work, substantially as described. 3rd. A drill head for a slot drilling machine comprising a sliding saddle B, capable of moving to and fro on a horizontal bed an oscillating head A carrying two drill spindles placed opposite to each other and operating upon different sides of the work, substantially as described. 4th. In a slot drilling machine, the oscillating drilling head A, pivoted upon a sliding saddle provided with two drill spindles E¹, and F¹, the sliding saddle B, upon which the drilling head is pivoted and capable of sliding to and fro on a horizontal bed in combination with the longitudinal driving shaft G, and gear wheels g¹, e, and f, by which the drills are operated and the longitudinal shaft J¹, worm J, worm-wheel j, crank shaft, and crank H, by which the oscillating motion is imparted to drilling head A, substantially as described. 5th. In a slot drilling machine, the combination with the drilling head A, and sliding saddle B of the connecting screw P by which they are moved to and fro on the bed C, the cross-head O, attached to the end of the screw, the rotating disc N, and the crank pin n, which traverse a slot in the cross-head and give a reciprocating movement thereto, substantially as described. 6th. In a slot drilling machine, the combination with the drilling head A, the two drill spindles E¹, and F¹, rotating therein provided with drills E, and F, of the cam L, on the crank shaft H, the vertical reciprocating rod l, moving up and down in a hole in the casting, the tappet l¹, on the tappet shaft M, with which the upper end of the rod l engages the tappet shaft M, projecting through both ends of the drill head, the levers m, on the ends of the tappet shaft, the connecting rods m¹, levers m¹¹, and pawls k¹, which actuate the ratchet-wheels K, on the ends of the screws k, and the right and left hand screws k connected to the drill spindles E¹, and F¹, substantially as described. 7th. In a slot drilling machine, the combination with the drill head A, sliding saddle B, and connecting screw P, of the cross-head O, attached to one end of the screw the crank disc N, an adjustable crank pin n, traversing a slot in the cross head the shaft J¹, the worm R, thereon the worm wheel r, connected to the crank and the removable pin r¹, passing through the disc of the crank and the worm wheel r, substantially as described. 8th. In a slot drilling machine the combination with the drilling head A, the reciprocating saddle B, and the connecting screw P, of the strap driven shaft p, projecting into the interior of the screw strap pulleys thereon and bevel gearing by which the screw may be rotated in either direction, substantially as described. 9th. In a slot drilling machine, the combination with the drilling head A, of the connecting screw P, the cross head O, attached to one end of the screw, the crank disc N, and crank pin n, traversing a slot in the cross head and at the other end of the screw, the strap driven shaft p, over the end of which the screw slides whereby a short or long traverse may be given to the drill head, substantially as described.

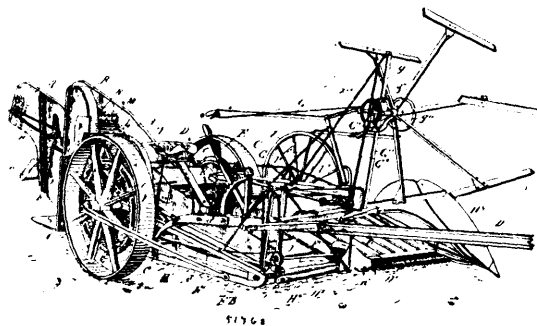
No. 51,761. Vehicle Spring. (*Ressort de voiture.*)



Robert Thompson Lombard and William Jay Hopkins, both of Racine, Wisconsin, U.S.A., 25th March, 1896; 6 years. (Filed 5th July, 1895.)

Claim.—1st. A vehicle-spring comprising a bolster A, and a bar G, above the same, in combination with crossed spring-leaves or rods E, F, whose upper ends are pivotally secured to said bar, and whose lower ends rest below the upper face of said bolster, and fulcrums C, for said spring-leaves or rods arranged lengthwise of the same. 2nd. A vehicle spring comprising a bolster A, and a bar G, above the same, in combination with two pairs of crossed spring-leaves or rods E, F, whose upper ends are pivotally secured to said bar, one pair of said crossed spring-leaves or rods being one side of said bolster, and the other pair on the other side of the same, and fulcrums C, for said spring-leaves or rods arranged lengthwise of the same.

No. 51,762. Combined Harvester, trasher and separator. (Moissonneuse, machine à battre et séparateur combinés)



William Jackson Conroy, Aylmer, and Alexander Maclaren, Buckingham, both of Quebec, assignees of John Skead McCormick, Ottawa, Ontario, all in Canada, 25th March, 1896; 6 years. (Filed 5th February, 1896.)

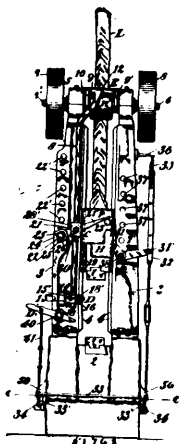
Claim.—1st. In a combined harvester and trasher, the combination of two rolled iron V-shaped parallel side frames having the upper limbs inclined so that the lower limbs of each side are approximately parallel to the ground, rolled iron bails open at the top to which the rear portions of said V-frames are secured and which form their transverse connection, a similar but shorter third V-shaped frame at one side parallel to the others and having its rear ends bent and secured to the adjacent main frame, a bolt passing through the front or point of the three frames and through tubular distance pieces between the three forming the connection at the front or point and two main or driving wheels supporting said main frame by suitable means secured to said frame, such as trunnions or a cranked axle secured to the main frame at such a point that the latter is nearly balanced when equipped with all its appointments but with a slight tendency to tilt forward, substantially as set forth. 2nd. In a combined harvester and trasher, the combination of two converging and meeting section-iron bars one above the other forming one side of a frame, transverse section iron bails open at the top to the upright parts of which the wide or rear ends of said sides are connected to form one structure, a similar but shorter frame at one side having its rear ends bent and secured to the adjacent side, a plate at the point or meeting ends of each side to which said bars are secured, a bolt passing through said joint plates of the three frames and through tubular distance pieces between them, substantially as set forth. 3rd. In a combined harvester and trasher, the combination of a pair of frames placed some distance apart and each composed of a pair of converging section-iron bars B and B¹ joined at one end, bails b to the uprights of which the rear ends of the bars are secured to connect the single frames transversely, an auxiliary frame B² B³, similar to the frames described but shorter and placed a short distance from one of the main frames and having the rear ends of the bars bent, joined and secured to the corresponding bars in the main frame, plates B⁴ B⁵ lashed to the point or end of each single frame, tubular distance pieces B⁶ B⁷ between said plates, and a bolt B⁸ passing through said plates and distance pieces and having a shoulder at one end and secured by a nut at the other, substantially as set forth. 4th. In a combined harvester and trasher, the combination of two sides each formed of two converging section-iron bars one above the other and meeting and connected at the meeting end, transverse section-iron bails open at the top having its upright sides secured to the diverging or rear ends of said bars, another similar but shorter side parallel to the others and having its rear end bent and secured to the adjacent side, a bolt passing through the joined front ends, tubular distance pieces between said sides and through which said bolt passes and a cranked axle passing under the lower bar at such a point as to balance the frame with its equipment and having its upright parts secured to said frame bars, stays or braces passing from the ends of the axle arms to the frame sides and main or driving wheels upon said axle, substantially as set forth. 5th. In a combined harvester and thrasher, the combination of V-shaped skeleton sides connected by transverse bails at its wide or open ends and a similar but shorter outer frame parallel to it and having its open ends bent and connected to the adjacent frame and adapted to support the gearing and the front or point of the frames connected by a transverse bolt and distance pieces, main or driving wheels journaled to said frame by suitable means such as trunnions or an axle in such a position as to balance the frames with its equipment upon said wheels, a pair of upright perforated bars secured to the converging part of the auxiliary frame side and adjacent main frame side some distance from the front or points, a tongue above said main frame side having a forked and bent down rear end straddling said frame-sides and pivoted to the said upright bars by a bolt or pin passing through said bars and forks, substantially as set forth. 6th. In a combined harvester and thrasher, the combination of a frame consisting of three V-shaped skeleton sides having their bars inclined so that the lower limbs are approximately parallel to the ground and said sides suitably connected transversely, main or driving wheels supporting said frame

by suitable means such as trunnions or axle and so as to be approximately balanced when equipped, a tongue above the middle frame side having a forked end pivotally secured to perforated connecting pieces on the converging parts on the middle and auxiliary frame sides by a transverse bolt or pin, a notched sector secured upon said tongue, a bell cranked hand lever pivoted in said motor and provided with spring stop engaging its notches and a yoke link pivoted to the bell crank and of the lever straddling the tongue and to the points or front ends of the off sides of the main frame, substantially as set forth. 7th. In a combined harvester and thrasher, the combination of a frame consisting of three V-shaped skeleton sides rigidly connected transversely and one being a shorter auxiliary one a short distance from the adjacent main side, main or driving wheels supporting said frame by suitable means such as trunnions or axle placed at such a point as to balance the frame with its equipment, a tongue pivotally connected to the auxiliary and adjacent main side, an adjustable bell crank lever pivoted upon said tongue, a yoke link pivoted to said bell crank and to the lower ends of posts and straddling said tongue, posts rigidly secured to the front of the auxiliary and adjacent main frame side and having the lower ends of the yoke link pivoted to them, a transverse rod with shoulder and tubular distance piece connecting the upper ends of said posts rigidly and extending laterally to the reel platform, a brace secured to the upper bar of the auxiliary frame and connected to the transverse rod, a double arm secured to the end of said transverse rod, adapted to hold guy rods for the reel post and reel adjusting lever, a brace or tie rod extending from said transverse rod to the front of the outer main frame side and supporting its front end, a strut secured to the lower end of said brace or tie rod, and supporting the front of the reel platform, the reel platform supported by said strut and held by the said transverse rod in front and supported upon a cross-piece upon the main frame at the rear, a rod or post hinged to the front of said platform adapted to tilt forward, a guy rod secured to the top of said post and to a branch of the double arm on the transverse rod referred to, a sliding frame on said post, a lever pivoted to said platform engaging said sliding frame, and a guy rod connected to said lever and to a branch of the double arm above referred to, substantially as set forth. 8th. In a combined harvester and thrasher, the combination of a frame consisting of three V-shaped skeleton sides rigidly connected transversely and one being a shorter auxiliary one a short distance from the adjacent main side, upright post F, rigidly secured to the front ends of the auxiliary and adjacent main frame sides, a transverse rod F¹, connecting the upper ends of said posts and extending laterally to hold the reel platform, a double arm F², on said transverse rod, a brace F³, on said transverse rod and secured upon the upper bar of the auxiliary frame side, a distance piece on said transverse rod between said posts, a brace or tie rod F⁴, extending from said transverse rod to the outer main frame side and supporting its front end, a strut F⁵, secured to the lower end of the tie rod F⁴, and supporting the end of the reel platform, and the reel platform G supported upon said strut at one end and upon a cross-piece secured to the main frame at the rear end, substantially as set forth. 9th. In a combined harvester and thrasher, the combination of a frame composed of transversely connected sides each consisting of an approximately horizontal lower and forwardly converging and meeting upper bar, a table hinged at one end to the forward part of the said upper bar of one said sides and parallel thereto, and so as to project laterally, said table consisting of a frame adapted to carry the cutting and carrying apparatus, a bearer rigidly secured to the free end of said table and pivoted to the rear end of the main frame, a truss or tie rod secured to the pivot end of said bearer, and to the free end of said table at a point forward of the point of attachment of the bearer, a strut supporting said truss rod upon said bearer, and an angularly disposed axle secured at one end to the rear end of the table and near the other below the strut to the bearer and having its arm bent to be at a right angle to the main frame, a stay rod secured to the said strut and to the fixed end of said axle, a grain wheel on the arm of said axle, and a pair of main or driving wheels in line with said grain wheel supporting the main frame at a point balancing the same with its equipment, substantially as set forth. 10th. In a combined harvester and thrasher, the combination of a frame composed of transversely connected sides each consisting of an approximately horizontal lower and forwardly converging and meeting upper bar, a table hinged laterally to the forward part of said main frame, a bearer I¹ secured rigidly to the rear angle of the table at one end and pivoted to the rear end of the main frame at the other, an angularly disposed axle I², having its end secured to the rear bar of the table near its hinged end and near the arm to the bearer, and having its arm i bent to be at a right angle to the main frame, a strut I³ above said axle upon said bearer, tie rods I⁴ and I⁵ secured to the upper end of said strut and respectively to the outer frame bar of the table forward of the point of attachment of the bearer I¹, and to the latter near its pivoted end and a stay rod I⁶ connecting the fixed end of the axle with the top of the strut, substantially as set forth. 11th. In a combined harvester and thrasher, the combination of a frame composed of transversely connected sides, each consisting of an approximately horizontal lower and a forwardly converging and meeting upper bar, hinge lugs secured to one of the upper bars, and projecting above its upper side, a table frame H provided with upwardly slanting ends having eyes engaging said hinge lugs, an apron roller H², having its axle passing through and journaled in said

hinge lugs and forming the hinge pin, an apron roller h^6 6 journalled at the other end of the frame, a slatted apron H^6 running over said rollers, guides h^7 , h^7 , a bevel wheel h^8 on the axle of the roller h^6 , bevel wheel h^{10} gearing into said bevel wheel, and a cross shaft H S upon which the bevel wheel h^{10} is mounted and which is journalled upon the main frame, substantially as set forth. 12th. In a combined harvester and thrasher, the combination of a frame composed of transversely connected sides each consisting of an approximately horizontal lower and a forward converging and meeting upper bar, a table hinged laterally to the forward part of said main frame, by means of lugs secured to and projecting above the upper bar of the main frame and upwardly bent ends or brackets on the table frame, an apron roller, the axle of which forms the hinge pin, another apron roller journalled at the other end of and lower in the frame of the table, a slatted carrier apron running over said rollers approximately level with the front edge of the table except at the delivery end, guides at the rear and front of the frame maintaining the level of the apron, an elevator apron in the channel formed by the frame sides and parallel with the upper bars of the same and running upon rollers journalled transversely in said channel and so that the upper surface of said apron is approximately level with the upper frame bar, a sprocket wheel on the axle of the upper roller of said apron and said axle adapted to receive motion, a cross shaft at the front end of the main frame carrying a sprocket wheel and connected to the sprocket wheel on the roller axle by a chain, and bevel wheels on said shaft and the inner roller on the table, substantially as set forth. 13th. In a combined harvester and thrasher, the combination of a frame consisting of three V-shaped skeleton sides rigidly connected transversely at the front or point by a bolt and tubular distance piece and at the rear two of them by transverse bails open at the top and the outside short or auxiliary one having bent ends secured to the adjacent main frame, main or driving wheels supporting said frame by suitable means such as trunnions or axle placed at such a point that the frame with its equipment is balanced thereon, an internal spur rim on the inner side of the driving wheel adjacent to the auxiliary frame side, a short cross shaft carried in journals supported on one of the main frame sides and the adjacent outer or auxiliary one, a pinion on said shaft gearing into said internal rim, a combined spur and bevel wheel loose on said shaft, a clutch box on said shaft and wheel adapted to connect shaft and wheel, a lever pivoted on a cross bar connected to the frame controlling said clutch box, a spring on said shaft pressing said clutch box into engagement, an elevator apron in the channel formed by the side-boards of the main frame, transverse rollers journalled in said frame sides upon which said apron runs and a spur pinion on the axle of the upper apron roller gearing in the spur rim of said combined spur and bevel wheel, substantially as set forth. 14th. In a combined harvester and thrasher, the combination of a frame consisting of three V-shaped skeleton sides rigidly connected transversely, main or driving wheels supporting said arm by suitable means such as trunnions or axle placed at such a point that the frame with its equipment is balanced thereon, an internal spur rim on the inner side of the driving wheel adjacent to the outer or auxiliary frame side a short cross shaft journalled centrally in a bearing carried by the outer or auxiliary frame side and another bearing on the adjacent main frame side, a pinion on the outer end of said shaft gearing into said internal rim, a combined spur and bevel wheel loose on said shaft, a clutch box on said shaft and wheel adapted to connect shaft and wheel, a lever pivoted on a cross bar connected to the frame controlling said clutch box, a spring on said shaft pressing said clutch box into engagement, a longitudinal shaft having one end journalled in a bearing forming part of the principal bearing of said cross shaft and the other in a bearing secured upon the front ends of the main frame side and the adjacent auxiliary one, a bevel wheel on said shaft gearing into the bevel rim of said combined spur and bevel wheel, a crank at the projecting front end of said shaft, a pitman pivoted to said crank, a knife connected to said pitman and a cutting table hinged laterally to the main frame and carrying at its front edge a finger bar in which said knife slides, substantially as set forth. 15th. In a combined harvester and thrasher, the combination of a frame consisting of three V-shaped skeleton sides rigidly connected transversely and one being a shorter auxiliary one a short distance from the adjacent main side, main or driving wheels C supporting said frame by suitable means such as trunnions or axle placed at such a point as to balance the frame with its equipment, an internal spur rim c on the driving wheel adjacent to the auxiliary frame side, a journal bearing 6^5 , carried on the auxiliary frame and adapted to carry the central part of a cross shaft and the end of a longitudinal shaft, a secondary bearing 7 on the main frame, a short cross shaft V journalled in said bearings, a spur pinion v at the other end of said shaft gearing in the internal spur rim c , a combined spur and bevel wheel V^1 loose on said shaft, a clutch box V^{11} on said shaft adapted to engage said combined wheel, a spring v^{11} upon said shaft adapted to press said clutch into engagement, a lever V^{11} pivoted on a cross piece secured to the upper frame bars and held in a stop and adapted to control said clutch box, the axle of the elevator apron roller J^{11} projecting parallel to the shaft V , a spur pinion J^{11} on said axle gearing into the spur rim of the combined spur and bevel wheel, a longitudinal shaft H^5 having one end journalled in the right angle branch 6^4 of the bearing 6 and the other in a bearing secured upon the front ends of the main and auxiliary frame sides, and a bevel wheel

e^1 on said shaft gearing into the bevel rim of said combined spur and bevel wheel, substantially as set forth. 16th. In a combined harvester and thrasher, the combination of a main frame composed of transversely connected skeleton sides each consisting of an approximately horizontal lower and a forwardly converging and meeting upper bar, main or drive wheels supporting said frame by suitable means such as trunnions or axle placed at such a point as to balance the frame with its equipment, internal spur rims on the inner sides of said main wheels, a pinion on each side of the frame gearing into said internal spur rim and adapted to engage a ratchet box, a cross shaft journalled upon the upper frame bars upon which said pinions are mounted loose, a ratchet box on each end of said shaft engaging said pinions, an internal wheel upon said shaft at one side of the main frame, a pinion gearing into said internal wheel, a cylinder journalled upon the upper frame bar of the main frame having its axle projecting and having said last mentioned pinion mounted upon it and receiving motion therefrom, substantially as set forth. 17th. In a combined harvester and thrasher, the combination of a main frame composed of transversely connected skeleton sides each consisting of an approximately horizontal lower and a forwardly converging and meeting upper bar, main or driving wheels supporting said frame by suitable means such as trunnions or axle placed at such a point as to balance the frame with its equipment, internal spur rims on the inner sides of said main wheels, a pinion on each side of the frame gearing into said internal spur rim and adapted to engage a ratchet box, a cross shaft journalled upon the upper frame bars upon which said pinions are mounted loose, a ratchet box on each end of said shaft engaging said pinion, an internal wheel upon said shaft at one side of the main frame, a pinion gearing into said internal wheel, a cross-shaft journalled upon the upper frame bars rearward of the cross-shaft hereinbefore mentioned upon which said pinion is mounted, substantially as set forth. 18th. In a combined harvester and thrasher, the combination of driving wheels, and a suitable frame supported by them in a balanced condition when fully equipped, internal spur rims c on said wheels, a pinion T on each side gearing into said internal rim, a cross-shaft T^1 , journalled upon the top of the frame and carrying said pinions loose, a ratchet box t , adjacent to each pinion adapted to engage the latter and connect it to the shaft, an internal wheel T^{11} upon said shaft, a pinion K^{11} , gearing into said internal wheel, a cylinder K journalled upon the top of the main frame forward of the shaft T^1 , and carrying upon its projecting axle the pinion K^{11} , a pinion U^{11} , gearing into said internal-wheel, a cross-shaft U^1 , journalled upon the top of the frame rearward of the shaft T^1 , and carrying said pinion U^{11} , substantially as set forth. 19th. In a combined harvester and thrasher, the combination of a frame adapted to carry the mechanism herein-after referred to, main or driving-wheels supporting said frame, a cross-shaft journalled upon the top of said frame and receiving motion from said driving-wheels through intermediate-wheels and pinions, a slatted apron L in the channel formed by the frame sides, rollers upon which said apron is supported, a straw carrier N in said channel, rollers upon which said carrier is supported, the inclined bottom N^3 under said carrier, sieves O under the lower end of said inclined bottom, an inclined bottom O^1 under said sieves, a conveyor casing Q^{11} at the lower end of said inclined bottom, a conveyor Q in said casing, an elevator R at the end of the conveyor, a fan P at the inner end and below the sieves, sprocket wheels u and u on the cross-shaft U^1 , a sprocket-wheel p on the fan spindle, and chain U connecting the latter and the sprocket-wheel u , a sprocket-wheel l on the upper roller axle of the apron L , a sprocket-wheel q on the conveyor shaft and the chain U connecting said last-mentioned sprocket-wheels and the sprocket-wheel u , and the sprocket-wheels Z^{11} , and z^{11} on the shafts of the apron rollers connected by the chain u , substantially as set forth. 20th. In a combined harvester and thrasher, the combination of a skeleton frame composed of V-shaped sides transversely connected by bails carrying side boards and forming a channel and a similar outside frame adapted to carry gearing and suitably connected, main or driving-wheels upon which said frame is balanced when fully equipped, an elevator apron in the forward end of the channel supported upon rollers journalled transversely in said frame and the upper one receiving motion from the driving wheel indirect, a cylinder journalled upon the frame adjacent to the upper roller of the elevator apron and receiving motion from the inner spur wheel upon a shaft driven by one or both driving wheels, a concave in which said cylinder is journalled, a slatted apron L on rollers, the lower one of which is under the opening of the concave to receive and elevate its product and the upper roller of which receives motion from a cross shaft, a beater above said upper roller, a straw carrier upon rollers the lower one of which is under the upper roller of the apron below and the upper roller of which is driven from the upper roller of said lower apron, an inclined bottom under said straw carrier, sieves under the delivery end of said bottom, an inclined bottom under said sieves, a conveyor casing at the lower end of said inclined bottom, a conveyor in said casing, an elevator at one end of said conveyor and a fan below and at the inner end of the sieves, said sieves conveyor elevator and fan receiving motion from said cross shaft, an inner spur rim on said driving wheels, a shaft journalled upon said frame and having pinions mounted upon it by ratchet boxes which pinions gear into said inner spur rims, an inner spur wheel upon said shaft driving the cylinder and the cross shaft above referred to, substantially as set forth.

No 51,763. Drop-Hammer. (Marteau.)



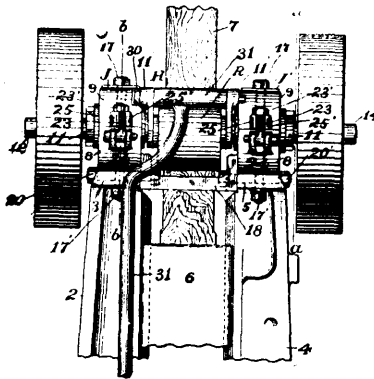
Frederick C. Billings and Frank Lombard, both of Hartford, Connecticut, U.S.A., 25th March, 1896; 6 years. (Filed 3rd February, 1896.)

Claim.—1st. In a drop-hammer of the class specified, the combination with a frame, of a reciprocatory-hammer, lifting-rolls, one of which is shiftable toward and from the other, an actuating-rod in operative connection with said shiftable roll, and adapted for shifting said roll toward and from the other roll, a speed-reducing device comprising a lever connected to said actuating-rod, and having one end thereof fulcrumed to the frame, and having its other end in the path of movement of the hammer, whereby it will be operated by the hammer at a predetermined point in the ascending movement of said hammer to lift the actuating-rod with a relatively-low velocity as compared with the velocity of said hammer, and means co-operating with the hammer and adapted for controlling the closing movement of the shiftable roll, substantially as described. 2nd. In a drop-hammer of the class specified, the combination with a frame, of a reciprocatory-hammer, lifting-rolls, one of which is shiftable toward and from the other, an actuating-rod in operative connection with said shiftable roll and adapted for shifting said roll toward and from the other roll, a speed-reducing device comprising a lever connected to said actuating-rod, and having one end thereof fulcrumed to the frame and having its other end in the path of movement of the hammer, whereby it will be operated by the hammer at a predetermined point in the ascending movement of said hammer to lift the actuating-rod with a relatively-low velocity as compared with the velocity of said hammer, means co-operating with the hammer, and adapted for controlling the closing movement of the shiftable roll, a holding device in position and adapted for holding the actuating rod in an elevated or roll-open position, and means for actuating said holding device, substantially as described. 3rd. In a drop hammer of the class specified, the combination with a frame, of shiftable lifting rolls, one of which is shiftable toward and from the other, a hammer, an actuating rod for said rolls, and a speed-reducing device comprising a lever adjustably connected to said rod, and having one end thereof adjustably fulcrumed to the frame, whereby the height of movement of said hammer can be regulated, and the opposite end of said lever projecting into the path of movement of the hammer, whereby said actuating rod and hammer have comparative movements of relatively-varying velocities, substantially as described. 4th. In a drop-hammer, the combination with a frame, of an actuating roll-shifting rod, a reciprocatory hammer, and a speed reducing device consisting of a lever having its inner end fulcrumed to the frame and pivotally connected, intermediate of its ends to the roll-shifting rod and adapted to lift said rod, and having its opposite end thereof projected into the path of movement of the hammer, whereby at a predetermined point in the ascending movement of the hammer, a comparative movement is imparted to the shifting-rod at a relatively-low velocity, substantially as described. 5th. In a drop-hammer of the class specified, the combination with a frame, of a reciprocatory hammer, lifting-rolls, one of which is shiftable toward and from the other, an actuating rod in operative connection with said shiftable roll, and adapted for shifting said roll toward and from the other roll, a speed-reducing device comprising a lever connected to said actuating rod, and having one end thereof fulcrumed to the frame, and its other end in the path of movement of the hammer, whereby it will be operated by the hammer at a predetermined point in the ascending movement of said hammer to lift the actuating-rod with a relatively-low velocity as compared with the velocity of said hammer, a holding device in position and adapted for holding the actuating rod in an elevated or roll-open position, and means for actuating said holding device, substantially as described and for the purpose set forth. 6th. In a drop hammer of the class specified,

the combination with the side frames, one of said side frames having a series of openings therein, of lifting-rolls, one of said rolls shiftable into and out from engagement with the other of said rolls, a hammer, an actuating rod operatively connected with one of said rolls for shifting said roll, and a speed-reducing device comprising a lever connected to said actuating rod, and having one end thereof adapted to be fulcrumed in any one of said openings, and having its opposite end projecting into the path of the hammer, whereby the actuating-rod and hammer co-operate and have comparative movements of relatively-varying velocities, substantially as described. 7th. In a drop-hammer, the combination with a suitable framework carrying a reciprocatory hammer, of two continuously rotatable hammer-lifting rolls, one of which is carried by an eccentric and is adapted for movement toward and from the other, an eccentric-actuating rod supported for longitudinal movement at one side of the path of movement of the hammer, a speed-reducing lever adjustably carried by the eccentric-actuating rod and having one end thereof fulcrumed upon the framework, and having the opposite end thereof projected into the path of movement of the hammer or into the path of movement of an abutment upon said hammer, and adapted to be operated by said hammer, at a predetermined point in the ascending movement thereof, to impart longitudinal movement to the actuating-rod and reduce the velocity of said rod relatively to the velocity of the hammer, substantially as described, and for the purpose set forth. 8th. In a drop-hammer, the combination with a frame, of hammer-lifting rolls, one of which is shiftable toward and from the other, a hammer, an actuating-rod for said shiftable-roll, a speed-reducing device operatively connected to said actuating-rod and operated by the hammer, and a holding device for holding said shiftable roll in roll-opening position comprising a bracket secured to the frame and having a recess therein, a right-angled lever pivoted to said bracket and having its bent, free end projecting into the path of the hammer, and a spring secured in the recess of the bracket, and connected to said angled-lever, to hold the same in engagement with the actuating-rod, substantially as described. 9th. In a drop-hammer of the class specified, having a reciprocatory-hammer or ram, a pair of lifting-rolls, one of which is shiftable toward and from the other, and an actuating-rod in connection with said roll, the combination therewith, and with the frame of the machine, of a speed-reducing lever in adjustable connection with the actuating-rod, and having a relatively short longitudinally-slotted arm fulcrumed upon a pin fixed to the framework of the machine, and having a relatively-long arm projected into the path of movement of the drop-hammer, and adapted to be engaged and operated by said drop-hammer, to impart a relatively-slow lifting movement to the actuating-rod at a predetermined point in the ascending movement of said hammer, substantially as described and for the purpose set forth. 10th. In a drop-hammer, the combination with the vertically reciprocating roll-shifting rod and with the reciprocatory-hammer, of a speed-reducing device consisting of a lever pivotally and adjustably connected intermediate to the ends thereof to the roll-shifting rod, and having one end thereof movably fulcrumed at one side of said rod, and having the opposite end thereof projected into the path of movement of an actuating-abutment upon the hammer, whereby at a predetermined point in the ascending movement of the hammer, a comparative movement is imparted to the shifting-rod, at a relatively-slow velocity, substantially as described, and for the purpose set forth. 11th. In a drop-hammer, in combination, a pair of lifting-rolls shiftable, the one toward and from the other, an actuating-rod in connection with the shiftable-roll and adapted for longitudinal movement, to effect an opening or closing of said rolls, a speed-reducing lever pivotally carried by said actuating-rod, having one end thereof fulcrumed at one side of said rod, and having the opposite end thereof projected into the path of movement of the hammer and adapted to be actuated by said hammer, a reciprocatory hammer in position and adapted for actuating said speed-reducing lever, at a predetermined point in the ascending movement of the hammer, and an auxiliary-holding device and a trip-lever, co-operating with each other and adapted, the holding device for engaging and holding the actuating-rod in an elevated position, and the trip-lever for automatically-engaging and holding the hammer in its elevated position, and means in connection with, and adapted for, simultaneously actuating said auxiliary-holding device and trip-lever, and to throw them into engaging or disengaging positions, respectively and alternately, substantially as described, and for the purpose set forth. 12th. In a drop-hammer, the combination with the vertically reciprocatory roll-actuating rod and with the vertically-reciprocatory hammer, in co-operative connection with said roll-actuating rod, of an auxiliary-holding device in position and adapted to engage and hold the actuating-rod in an elevated position, a trip-lever in position and adapted for normally-engaging and holding the hammer in an elevated position, and a treadle mechanism in connection with, and adapted for simultaneously operating the auxiliary-holding device and trip-lever, to simultaneously throw the auxiliary-holding device into engagement with the actuating-rod, and to throw the trip-lever out of engagement with the hammer, or vice versa, substantially as described, and for the purpose set forth. 13th. In a drop-hammer, the combination with the holding-device for the roll-actuating rod, and with the tripping-lever for the hammer, of a treadle-mechanism in operative connection therewith and comprising a U-shaped treadle having the two side arms thereof pivotally-connected to opposite sides of the base or frame of the ma-

chine, and a U-shaped weighted-lever, having its side arms fulcrumed upon opposite sides of said frame, approximately midway of the length of said arms, and having their outer ends in sliding engagement with the side arms of the treadle, and adapted for normally-elevating said treadle, substantially as described and for the purpose set forth.

No. 51,764. Drop-Hammer. (Marteau.)

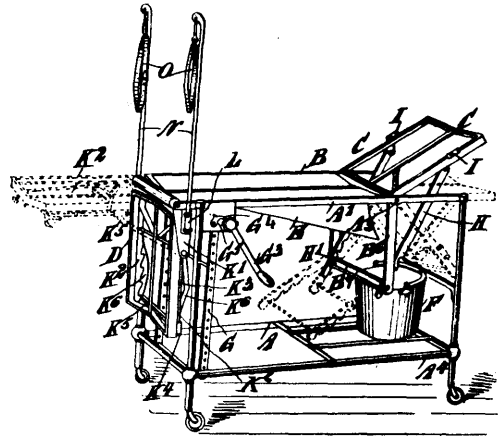


Frederick C. Billings and Warren J. Belcher, both of Hartford, Connecticut, U.S.A., 25th March, 1896; 6 years. (Filed 3rd February, 1896.)

Claim.—1st. In a drop-hammer, the combination with the two side-frames, of a roll-carrying head consisting of two connected journal-boxes secured one to each side-frame, and each consisting of a fixed lower member having upwardly-extending front and rear portions, the front portion thereof having an approximately semi-circular recess in its upper face, and an upper member hinged to said lower member adjacent to the upper end of the rear portion thereof, and having a downwardly-extending front portion having an approximately semi-circular recess therein adapted to form with the recess in the lower portion, a substantially-circular journal-bearing adapted to rotatably support a roll-actuating eccentric, a horizontally-shiftable journal-bearing supported between said upper and lower members in the rear of the approximately-circular journal-bearing, means in connection with and adapted for clamping said members together, and a slotted right-angled strut integral with and connecting said journal-boxes and depending below said boxes, and having a bearing engagement with and clamped to said side-frames, whereby the boxes will be prevented from lateral movement relatively to the side-frames, substantially as described. 2nd. In a drop-hammer, the combination with the two side-frames, of a roll-carrying head comprising two connected journal-boxes secured one to each side-frame, and each consisting of a fixed lower member and an upper member hinged to said lower member, and each journal-box having a bearing intermediate to said two members adapted for rotatably supporting a roll-actuating eccentric, and each having a slideway adapted for shiftable supporting a horizontally-shiftable journal-bearing, and a slotted right-angled strut integral with and connecting said journal-boxes and depending below said journal-boxes, and having a bearing engagement with and clamped to said side-frames, whereby the boxes will be prevented from lateral movement relative to the side-frames, substantially as described. 3rd. In a drop-hammer, the combination with the two side-frames having laterally-projecting flanges at their upper ends, having rabbets on their upper faces, of a roll-carrying head comprising two connected journal-boxes secured one to each side-frame, and each consisting of a fixed lower member having rabbets on its under surface adapted to engage the rabbets on the laterally-projecting flanges of the side-frames, whereby the journal-boxes are rigidly held from movement relative to the side-frames, and an upper member hinged to said lower member, each journal-box having a bearing intermediate to said two members adapted for rotatably supporting a roll-actuating eccentric, and each having a slideway provided with a guide, a horizontally-shiftable journal-bearing adapted to engage said guide in the slideway, and a slotted right-angled strut integral with and connecting said journal-boxes and depending below said boxes, and having a bearing engagement with and clamped to said side-frames, whereby the boxes will be prevented from lateral movement relative to the side-frames, substantially as described. 4th. In a drop-hammer, the combination with a roll-carrying head comprising two connected relatively-remote journal-boxes adapted to support journal bearings, each journal-box comprising an upper and a lower member, and one of said members having a bifurcated end forming parallel knuckles adapted to overlap the knuckle of the other member, a clamping device consisting of a tie-rod extending through the hinge-knuckles and clamping said journal-boxes together, and constituting a pintle on which the upper members of said boxes swing, a sleeve on said pintle between, and

abutting against the inner faces of the journal-boxes, and constituting an abutment for said journal-boxes, and means for tightly clamping said tie-rod in the journal-boxes and the journal-boxes against the sleeve, whereby said boxes are prevented from being strained out of position or separated, and whereby also vibration of the boxes relatively to each other is substantially prevented, substantially as described. 5th. In a drop-hammer, the combination with the two side-frames, of a roller-carrying head comprising two connected relatively-remote journal boxes, adapted to support journal-bearings, each journal-box comprising an upper and a lower member having parallel extending hinge-knuckles, a clamping device consisting of a tie-rod adapted to connect and clamp said journal-boxes together, and constituting a pintle on which the upper members of said boxes swing, a sleeve on said pintle between and abutting against the inner faces of the journal-boxes to keep the same from being drawn out of position, means for tightly clamping said tie-rod in the journal-boxes, whereby said journal-boxes are prevented from being strained out of position or separated, and a slotted right-angled strut integral with and connecting said journal-boxes and depending below said boxes, and having a bearing engagement with and clamped to said side-frames, whereby the boxes will be prevented from lateral movement relatively to the side-frames, substantially as described. 6th. In a drop-hammer, the combination with the two side-frames, of a roll-carrying head consisting of two connected journal-boxes, secured one to each side frame, and each consisting of a lower member and an upper member hinged to said lower member, and having a substantially-circular journal bearing adapted to rotatably support a roll-actuating eccentric, a horizontally-shiftable journal-bearing supported between said upper and lower members in the rear of the approximately-circular journal-bearing, a relatively long clamping-bolt extending through both members of each journal-box, and adapted to clamp said members together and to the frame, and a relatively-short clamping-bolt extending through the lower member of each journal-box, and adapted to clamp the journal-boxes to the side-frames, whereby by means of the clamping-bolts, the two members of each journal-box are held clamped together, and the journal-boxes fixed to the frames, and a slotted right-angled strut integral with and connecting, said journal-boxes and depending below said boxes, and having a bearing engagement with, and clamped to said side frames, whereby the boxes will be prevented from lateral movement relatively to the side-frames, substantially as described.

No. 51,765. Operating Table. (Table d'opération.)

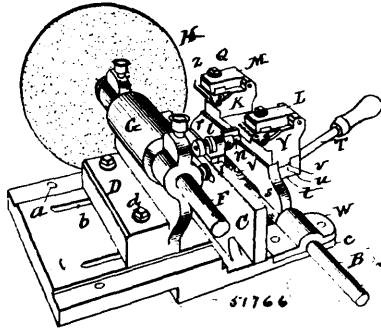


Richard Kny, Brooklyn, New York, U.S.A., 25th March, 1896; 6 years. (Filed 3rd February, 1896.)

Claim.—1st. An operating table, comprising a frame, a longitudinally slotted table top loosely connected to the frame and adjustable to various inclinations, and a gutter secured directly to said top so as to move therewith, and arranged below the opening in the top, substantially as described. 2nd. An operating table, comprising a suitable frame, and a table top composed of pivotally connected sections sundry of which are longitudinally slotted, and gutters secured to each of the slotted sections and each movable with the section to which it is attached and each movable with the section to which it is attached below the slots thereof, substantially as described. 3rd. An operating table, provided with a table top and shoulder braces adjustable longitudinally thereof, substantially as described. 4th. An operating table, provided with a table top and shoulder braces projecting therefrom, substantially as described. 5th. An operating table, provided with a table top, posts adjustably secured to the table top and having transversely bent portions so that the distance between their free ends may be varied by adjusting them further in or out, and leg supports at the free ends of the posts, substantially as described. 6th. An operating table, provided with a table top, posts mounted at an angle thereto and capable of turning about their axes, said posts having transversely bent portions so that the

distance between their free ends may be varied by turning the posts, and leg supports at the free ends of the posts, substantially as described. 7th. An operating table, provided with a table top, sockets arranged at an angle thereto and formed with a plurality of radial recesses, posts whose lower ends are provided with pins adapted to engage the said recesses, the posts being mounted to turn in the sockets and having bent portions so that their free ends may be brought closer together or farther apart by turning the posts, and leg supports at the free ends of the posts, substantially as described. 8th. An operating table, provided with a pivoted head rest having sockets, rods held adjustable in said sockets, and shoulder braces formed on said rods, substantially as shown and described. 9th. An operating table, provided with a table top having a pivoted extension, guides extending longitudinally of said extension, slides or sockets mounted to move on said guides, a bar connecting the sockets, movable notched bars secured to the extension and adapted to engage the said connecting bar, and arms or braces pivotally connected with the table top and the connecting bar, substantially as described.

No. 51,766. Machine for Duplicating Articles.
(Machine pour faire des clef en double.)



Edmund R. Darling, Woonsocket, Rhode Island, U.S.A., 25th March, 1896; 6 years. (Filed 24th January, 1896.)

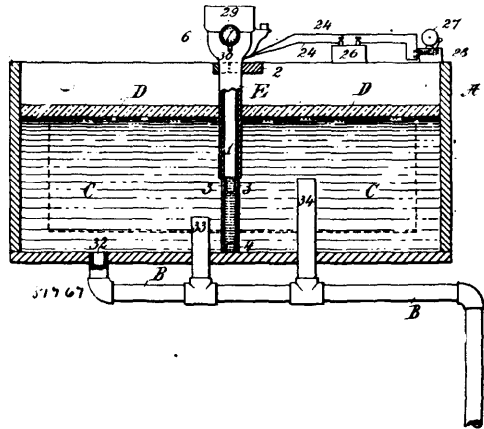
Claim.—1st. In a duplicating machine, the base plate having the parallel slots crosswise thereof, and also having the arms at its forward end, the upright bearing C, slotted horizontally in combination with the slidable frame carrying upright bearings and adjustable crosswise of the bed-plate, the tool shaft journaled in said bearings, the tool on said shaft, the adjustable holder arranged on the bearing frame C, the guide piece having a threaded stem seated in said holder, the nuts on said threaded stem, and a pattern and stock carriage hinged on a rod bearing in the bed plate and adapted to hold a pattern and a blank, and a lever pivoted in the carriage and adapted to engage the socket of the bearings C, substantially as specified. 2nd. In a duplicating machine, the combination with the main frame, having the upright bearing C, the slide carrying the tool shaft and adjustable crosswise of the frame, said upright bearing being slotted horizontally and provided in its face with the vertically disposed socket *g*, the carriage hinged to the main frame by the rod B, and provided with two clamps to receive a pattern and a blank, respectively, the angular lever pivoted to the carriage and provided with a handle to manipulate the same, the inner end of said lever being adapted to enter the socket when the carriage has been raised, and the guide piece arranged upon the bearing C, and adapted to be adjusted both lengthwise and cross-wise of the machine, and also to bear against the pattern, substantially as specified. 3rd. In a duplicating machine, the combination with a main frame having the bearing C rising therefrom, of the holder I, provided with the groove *k* in its upper edge, the guide piece *n* having the threaded stem passing through an aperture in the holder, the nuts on said stem, said holder being adjustably secured to the bearing C, a tool shaft arranged on one side of the bearing and carrying a grinder, and a carriage hinged to the main frame on the opposite side of the bearing and adapted to carry a pattern and a blank, respectively, substantially as specified.

No. 51,767. Method of and Apparatus for Preventing the Closure of Water Tanks by Freezing.
(Methode et appareil pour empêcher la fermeture des citernes par la gelée.)

Clarence Ladd Davis, Gerard Diederik Mole and John Cornelis Le-bret, all of New York, State of New York, U.S.A., 25th March, 1896; 6 years. (Filed 3rd February, 1896.)

Claim.—1st. The herein described method of preventing the closure of water tanks by freezing, which consists in insulating a portion of the water surface from the rest, and then insulating such insulated surface from the atmosphere by covering the same with a non-freezing fluid, in such manner that the pressure of the atmosphere will be exerted upon the insulated surface when the main surface is frozen over and water is drawn from the tank. 2nd. The herein described method of preventing the closure of water tanks by freezing, which consists in insulating a portion of the water from the rest by enclosing the same in an insulating pipe in communication with

the tank below the water level thereof and also in communication at the other end with the atmosphere by way of an inwardly opening valve, and then insulating the water surface in the pipe from the atmosphere by filling the pipe with a non-freezing fluid. 3rd. The



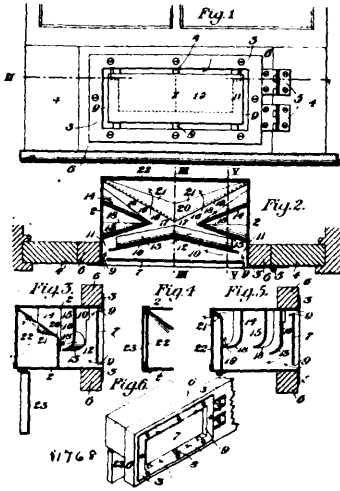
herein described method of preventing the closure of water tanks by freezing, which consists in insulating a portion of the water from the rest by enclosing the same in an insulating pipe in communication with the tank below the water level thereof and also in communication at the other end with the atmosphere by way of an inwardly opening valve, and then insulating the water surface in the pipe from the atmosphere by filling the pipe with air or compressed air. 4th. The herein described method of preventing the closure of water tanks by freezing, which consists in depressing a portion of the water surface below the level of the surface of the main portion thereof an insulating such depressed surface from the atmosphere in such manner that the pressure of the atmosphere will be exerted upon such depressed surface when the main surface is frozen over and water is drawn from the tank. 5th. The combination with a tank, of a suitable pipe in communication with the tank below the surface of the water therein and also in communication with the atmosphere through an air-inlet orifice, of an inwardly opening valve for closing the air-inlet orifice, and a non-freezing fluid filling the pipe between the valve and the water surface therein, substantially as shown and described and for the purpose set forth. 6th. The combination with a tank, of a suitable pipe in communication therewith below the surface of the water therein and also in communication with the atmosphere through an air-inlet orifice, an inwardly opening valve for closing the air-inlet orifice, and a non-freezing fluid filling the pipe between the valve and the water surface therein in such manner as to depress such surface, substantially as shown and described and for the purpose set forth. 7th. The combination with a tank, of a suitable pipe in communication therewith below the surface of the water therein and also in communication with the atmosphere through an air-inlet orifice, of an inwardly opening valve for closing the air-inlet orifice, and a body of air or compressed air filling the pipe between the valve and the water surface therein, substantially as shown and described, and for the purpose set forth. 8th. The combination with a tank, of a suitable pipe in communication therewith below the surface of the water therein and also with the atmosphere through an air-inlet orifice, and a valve for closing the air-inlet orifice normally shutting off communication between the interior of the pipe and the atmosphere but adapted to yield and admit air to the pipe whenever the pressure in the pipe falls below a predetermined point, substantially as shown and described and for the purpose set forth. 9th. The combination with a tank, of a suitable pipe in communication therewith below the surface of the water therein and also in communication with the atmosphere, means for retaining the water surface in the pipe in a depressed position below the level of the surface of the main body of water in the tank, and means for indicating the rising of the water in the pipe, substantially as shown and described and for the purposes set forth. 10th. In a device for preventing the closure of water tanks by freezing, the combination with a pipe formed of or covered with a suitable insulating material and adapted to insulate a portion of the surface of a body of water from the main surface, of an inwardly opening valve for closing the outer end of the pipe, a channel 20 in communication with the interior of the pipe and with the atmosphere, and means for closing such channel 20, substantially as shown and described and for the purpose set forth.

No. 51,768. Ventilator. (Ventilateur.)

John Thomas Darkins, Allegheny, Pennsylvania, U.S.A., 25th March, 1896; 6 years. (Filed 20th February, 1896.)

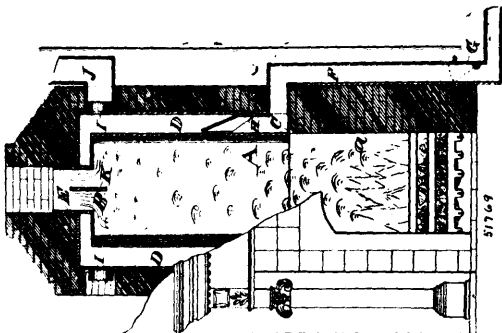
Claim.—1st. In combination with a window, a ventilator comprising a rectangular box or case provided with a diaphragm and a perforated screen on the receiving and delivery sides respectively and intervening flanged baffle partitions located between them, the ventilator being secured to a swinging block 6, hinged to a partition block 4, and fitting against a similar block 4', the swinging block 6,

ventilator case 2, and partition blocks 4 and 4' entirely filling the space between the window sash and the sill, substantially as set forth. 2nd. In combination with a ventilator comprising a rectangular box or case provided with a diaphragm and a perforated screen



on the receiving and delivery sides respectively and intervening flanged baffle partitions located between them, a hinged hood 23 secured to the screen side of the ventilator case, for the purposes and in the manner set forth. 3rd. A ventilator comprising a rectangular box or case provided with a diaphragm 7 suspended within the case and having an intervening surrounding space 9, a partition 10 suspended back of the diaphragm open at the ends and bottom and receding towards the centre, partitions 14 and 15 similarly suspended and converging toward the centre to an apex 16, a partition 19 extending upwardly from the bottom of the case for the full length, projecting outwardly toward the centre of partition 10, and diminishing in height from the top of the case at each side toward the centre, the open edges of all the partitions being bent under and over in a direction away from the diaphragm 7, a screen 22 extending across the outer face of the case, and a head 23 hinged to the bottom, for the purpose of closing the opening, substantially as set forth. 4th. In combination with a moving vehicle, a ventilator consisting of a rectangular box or case secured upon an opening in the vehicle provided with funnels 25 at each end extending within the case, partition 10, extending across the case open at the top and receding toward the centre, partitions 14 and 15, suspended from the top of the case and converging toward the centre to an apex 16, a partition 19 suspended from the top of the case, open at the ends projecting inwardly toward the centre of partition 10, and a diaphragm 24, suspended within the case and having an intervening surrounding space 9', the points and angles of the various partitions being so located as to offer an obstruction to the circulation of foreign matter, and their various flanges being bent under and over in a direction away from the opening in the vehicle, substantially as set forth.

No. 51,769. Grate Drum Heater. (Poêle sourd.)

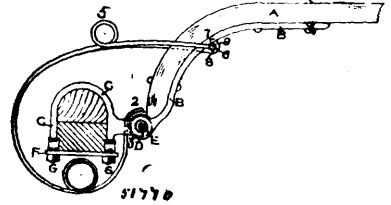


Anna Woods, Vancouver, British Columbia, Canada, 26th March, 1896; 6 years. (Filed 21st February, 1896.)

Claim.—1st. In a grate drum heater, the combination of a reservoir with a large opening at its base and its top being suddenly contracted to a small opening furnished with a collar, a hot air chamber encircling the said reservoir and engaging the neck thereof, substantially as and for the purposes hereinbefore specified. 2nd. In a

grate drum heater, the combination of a reservoir, provided with a horizontal flange around its base, a narrow collar neck at its top, with a damper arranged therein, a hot air chamber encircling the said reservoir and securely fixed thereto at its top and base, substantially as and for the purposes set forth. 3rd. In a grate drum heater, the combination of a reservoir encircled by a hot air chamber, the said chamber, being provided with apertures at its base on either side, deflectors securely fixed above said apertures, and openings with collars around and near its top, all substantially as and for the purposes hereinbefore set forth.

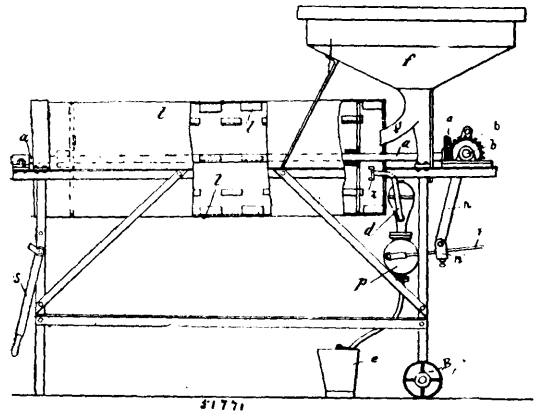
No. 51,770. Anti-rattler and Shaft support. (Tuteur de limonière et compensateur.)



Frederick Hanson, Oustic, Ontario, Canada, 26th March, 1896; 6 years. (Filed 21st February, 1896.)

Claim.—1st. The second coil on the top of axel shown on drawings at 5, substantially as and for the purpose hereinbefore set forth. 2nd. The roller on bent arm shown on drawings at 6, substantially as and for the purpose hereinbefore set forth.

No. 51,771. Machine for Treating Plants and Parts of Plants with Liquids. (Machine pour arroser les plantes, etc.)

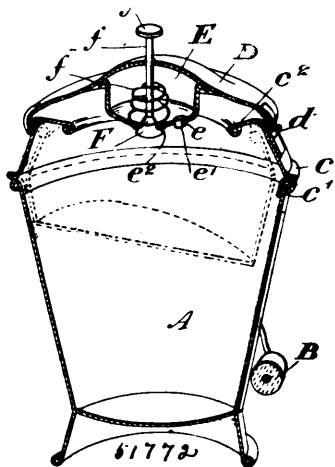


Johannes Theodor Wagener, Suderode, Prussia, Germany, 26th March, 1896; 6 years. (Filed 22nd January, 1896.)

Claim.—1st. In a machine for treating vegetable growth, the combination of a rotating drum and a spraying nozzle directed into the interior of said drum, substantially as described. 2nd. In a machine for treating vegetable growths, the combination of a rotating drum having the lower part at the discharge end lower than the part at the entrance end, and a spraying nozzle directed into the interior of said drum, substantially as described. 3rd. In a machine for treating vegetable growths, the combination of a rotating drum, a spraying nozzle directed into the interior of said drum, a pump for said spraying nozzle, and means for simultaneously rotating said drum and operating said pump, substantially as described. 4th. In a machine for treating vegetable growths, the combination of a rotating drum, a spraying nozzle directed into the interior of said drum, a pump for said spraying nozzle, and adjustable means for simultaneously rotating said drum and operating said pump, substantially as described. 5th. In a machine for treating vegetable growths, the inclined drum, the hopper having a spout terminating in the interior of same, and the spraying nozzle, all substantially as described. 6th. In a machine for treating vegetable growths, the combination of the rotating drum and its shaft *a*, the shaft *b*, the connection between it and the shaft *a*, the pump and its arm, the connections between the shaft *b* and said arm, all substantially as described. 7th. In a machine for treating vegetable growths, the combination of the rotating drum and its shaft *a*, the shaft *b*, the bevel wheels *a*¹ and *b*¹, the link *n*, the pump *p*, the pump arm and the adjustable piece *n*¹, all substantially as described. 8th. In a machine for treating vegetable growths, the combination with a spraying nozzle, force pump for said spraying nozzle, means for operating said force pump, of a removable reservoir for containing the fluid used in treatment and a flexible pipe for connection with said reservoir, substantially as described. 9th. The combination with the drum, pump hopper and their auxiliary devices, of a framework provided with and supported on wheels at one end and pro-

vided with the dropping handles *s* at the other, substantially as described. 10th. The combination of the drum partly closed at one end by the annular ring *c*, the inclined shaft *a*, the hopper having a spout extending into the aperture formed by the central opening in the ring *c*, the spraying nozzle *z*, also extending into same, means for rotating said drum and forcing a quid through said nozzle, substantially as described. 11th. In a machine for treating vegetable growths, the combination with a rotating drum, spraying nozzle directed into the interior of said drum, means for rotating said drums and throwing a spray through said nozzle and separating projections placed in the interior of said drum, substantially as described. 12th. In a machine for treating vegetable growths, the combination with the drum, the spraying nozzle and the means for operating these parts of the separating projections, all substantially as described.

No. 51,772. Bedroom Commode and Pan.
(*Seau pour chambre à coucher*)



Thomas Laing Fortune, Clinton, Ontario, Canada, 26th March, 1896; 6 years. (Filed 21st February, 1896.)

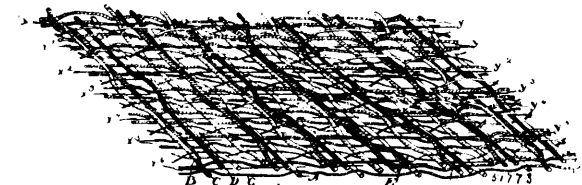
Claim.—1st. The combination with a bedroom pail, of supplemental top provided with flanged outwardly extending lower rim and a concaved inwardly extending upper rim forming a central opening, and a lid for such top, as and for the purpose specified. 2nd. The combination with a bedroom pail, of supplemental top provided with flanged outwardly extending lower rim and a concaved inwardly extending upper rim forming a central opening, a lid for such top and a disinfecting cup provided with a bottom opening and suitably operated valve for such opening, as and for the purpose specified. 3rd. The combination with a bedroom pail, of a supplemental top provided with flanged outwardly extending lower rim and a concaved inwardly extending upper rim forming a central opening, a lid for such top and a disinfecting cup provided with a bottom opening, a valve with stem extending up through the lid with a press button and a spring connected to the stem and resting on the bottom of the cup as and for the purpose specified. 4th. The combination with the supplemental top provided with a flanged outwardly and downwardly extending lower rim and top concaved inner flange forming a central opening, and the lid, of a false bottom having upwardly extending bands, the lower portion of the band being narrower at one side than the other, at an obtuse angle to the upper portion, and designed to extend into the interior of the top and means for connecting the false bottom to the supplemental top as and for the purpose specified. 5th. The combination with the supplemental top provided with a flanged outwardly and downwardly extending lower rim and top concaved inner flange forming a central opening, and the lid, of a false bottom having upwardly extending bands, the lower portion of the band being narrower at one side than the other, at an obtuse angle to the upper portion, and designed to extend into the interior of the top and the clasps in pivoted beneath the false bottom and having the hook shaped upper ends extending over the lower rim of the supplemental top to fasten the parts together as and for the purpose specified.

No. 51,773. Carpet. (*Tapis*.)

James Camelford and John Camelford, both of Paris, Ontario, Canada, 26th March, 1896; 6 years. (Filed 17th January, 1896.)

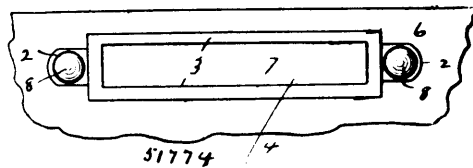
Claim.—1st. The herein described method of producing carpets with a different pattern or design on each side consisting in introducing special pairs of warp threads throughout the width of the

carpet, arranging sets of four weft threads and passing the portions of the weft threads to form the pattern to the outside of the special warp threads and the refuse or unrequired portion of the weft



threads in pairs between the warp threads of a set and securing each set in position by crossed binding warp threads as and for the purpose specified. 2nd. The herein described method of producing carpets with a different pattern or design on each side consisting in introducing special pairs of warp threads throughout the width of the carpet, arranging sets of four weft threads and passing the portions of the weft threads to form the pattern to the outside of the special warp threads, and the refuse or unrequired portion of the weft threads in pairs between the warp threads of a set and securing each set in position by crossed binding warp threads and passing when required the weft thread from the outside of one special warp thread to the outside of the other special warp thread as and for the purpose specified. 3rd. The herein described method of producing carpets with a different pattern or design on each side consisting in introducing special pairs of warp threads throughout the width of the carpet, arranging sets of four weft threads and providing a supplemental special warp thread corresponding in number to the pairs of special warp threads, and then designed to pass substantially between them and passing the portions of the weft threads to form the pattern to the outside of the special warp threads and separating the refuse or unrequired portion of the weft threads, so that they lie one above the other and in vertical alignment with the pattern forming portions of the weft threads and finally securing each set in position by crossed binding warp threads, as and for the purpose specified.

No. 51,774. Label Holder. (*Porte-étiquette*.)



Americus C. Mills, jr., Rochester, New York, U.S.A., 26th March, 1896; 6 years. (Filed 23rd January, 1896.)

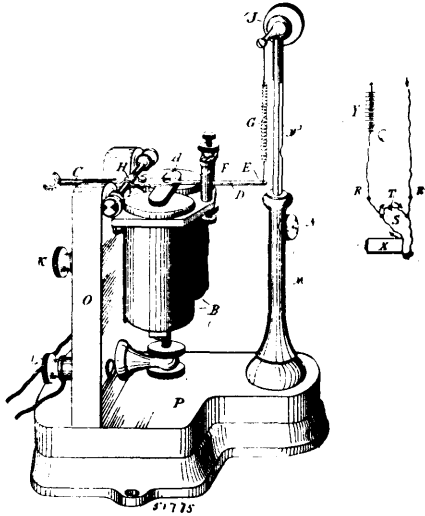
Claim.—1st. A label-holder composed of a hollow, flattened, tubular body open at the ends having attaching ears below and beyond said ends in combination with attaching devices, as nails or screws, having the rounded heads and passing through said ears and preventing the accidental though facilitating the positive removal of the label, substantially as described. 2nd. In a label-holder, the combination of the base having the attaching ears, the overlying slotted face portion and the tucking flap connected thereto and turned beneath the base portion and between it and the support, substantially as described. 3rd. In a label-holder, the combination of the base having the attaching ears at the ends, the overlying slotted face portion having the beaded ends, the tucking flap connected thereto and turned beneath the base portion, and the securing pins or screws passing through the attaching ears, substantially as described. 4th. The herein described blank for label-holders formed of a single piece of material embodying the base portion 1 having the ears 2, the portion 3, having the slot 4, and the tucking flap 5, the whole being arranged to be folded, substantially as shown. 5th. The herein described blank for label-holders formed of a single piece of material embodying the base portion 1, having the ears 2, the portion 3, having the slot 4, and flanges 3', and the tucking flap 5, the whole being arranged to be folded, substantially as shown. 6th. A label-holder composed of a hollow, flat, tubular body and having attaching ears below and beyond said ends, in combination with the clip plate 10, the attaching pins 8', passing through said clip and the attaching ears on the holder, substantially as shown.

No. 51,775. Telegraph Relay. (*Relai pour télégraphes*.)

Archibald David Macdonald, Brighton, near Melbourne, Victoria, Australia, 26th March, 1896; 6 years. (Filed 26th October, 1895.)

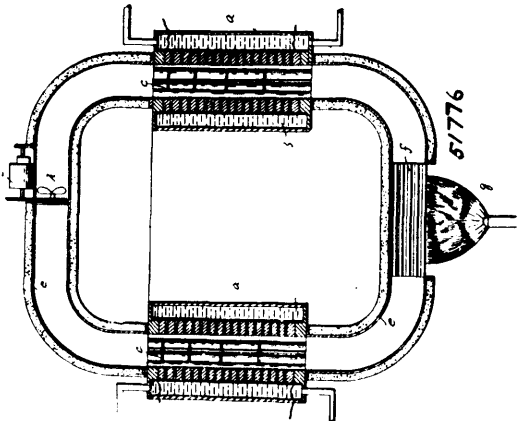
Claim.—1st. In a relay, the combination with an electro-magnet, of a lever having on one side of its fulcrum in successive order an armature, contact points and a tension spring, the last vertically set above the end of the lever, and on the other side of its fulcrum an arm or extension heavy enough to act as a counterpoise to the weight on the armature side of the lever and allowing the lever to rise against the back stop under the influence of the tension

spring, which is regulated to exert the desired upward pull, substantially as and for the purposes herein set forth. 2nd. In a relay, the employment of a horizontally arranged armature lever having the arm carrying the armature extending beyond said armature,



such extended arm being connected to a vertical spring set above the same and serving to raise said arm against the back stop when pulling it with the predetermined force, the said arm and armature falling by their own weight to form the local circuit, substantially as and for the purposes herein set forth. 3rd. In a polarized relay, the employment of a horizontally arranged pivoted armature lever adapted to oscillate vertically between cores placed one above another, the lever having on one side contact points and a tension spring, the spring being vertically set above the end of the lever, and on the other side an arm or extension heavy enough to act as a counterpoise to cause the lever to rise up against the back stop under the influence of the spring, which is regulated to exert the predetermined upward pull, substantially as and for the purposes herein set forth. 4th. In a polarized relay having its cores set above one another, the employment of a horizontally arranged pivoted armature lever adapted to oscillate vertically between the cores and having the arm carrying the armature extended beyond said cores, such extended arm being connected to a vertical spring set above the same and serving to raise said arm against the back stop when pulling it with a predetermined force, the said arm falling by its own weight to form the local circuit, substantially as and for the purposes herein set forth. 5th. The herein described method of rendering relays workable with weak currents, the same consisting in momentarily introducing through the relay (when the main line circuit is disconnected therefrom) a circuit having the same direction and polarity as the weak current, subsequently reconnecting the weak current and using this current in working the relay. 6th. The herein described method of rendering relays workable with weak currents, the same consisting in leaving the weak current in circuit through the relay and of momentarily combining therewith an additional current of the same polarity and of sufficient strength.

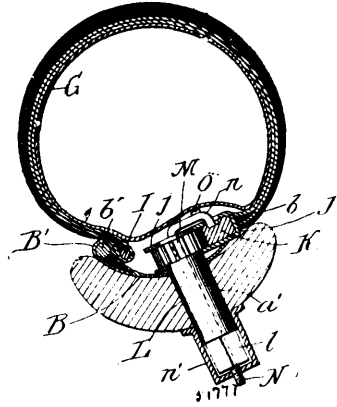
No. 51,776. Thermo Electric Generator.
(Générateur thermo-électrique.)



Harry Barringer Cox, Hartford, Connecticut, U.S.A., 26th March, 1896; 6 years. (Filed 26th September, 1895.)

Claim.—1st. The herein described mode of operating thermo-electric generators, which consists in conveying the heat from the source of heat to the generator through the medium of a constantly circulating confined body of fluid, substantially as described. 2nd. The herein described mode of operating thermo-electric generators, which consists in constantly circulating a confined body of thermic energy through the generator, substantially as described. 3rd. The herein described mode of operating thermo-electric generators, which consists in maintaining the heated surface of the generator at the desired temperature through the medium of a confined body of air, and constantly forcing said air to rotate from the source of heat through the generator, substantially as described. 4th. A thermo-electric generator having its surface to be heated comprised within a fluid circuit or circuit, means to heat the fluid in said conduit, and a propeller in said conduit for circulating the fluid therein, substantially as described. 5th. A thermo-electric generator, a continuous fluid conduit including the generator, a heater included in said conduit, and a propeller in said conduit provided with exterior driving means, substantially as set forth. 6th. A thermo-electro generator, in combination with a continuous fluid conduit including the generator and a heater, substantially as set forth. 7th. One or more thermo-electric generators, in combination with insulated pipes connecting the interiors thereof so as to form a continuous closed air conduit, a heater or heaters for the conduit through which the air passes, and an air circulating device, substantially as described.

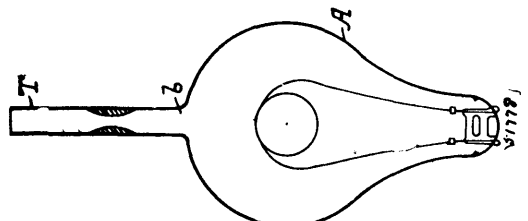
No. 51,777. Vehicle Wheel. (Roue de voiture.)



George S. Webb, Aurora, Illinois, U.S.A., 26th March, 1896; 6 years. (Filed 15th May, 1895.)

Claim.—1st. In a wheel, the combination with the rim and tire, of a band engaging the tire, a housing to which one end of the band is attached, a rack-bar to which the other end of the band is attached, a series of ratchet teeth formed on the rack-bar, a pinion journaled to the housing and engaging the rack-bar, a shaft to which the pinion is secured, said shaft having a longitudinal perforation, a detent engaging the ratchet-teeth for preventing retrograde movement of the rack-bar, a spring holding said detent normally in engagement with the ratchet-teeth, and a stem for lifting the detent occupying the perforation of the shaft and projecting therefrom, substantially as set forth. 2nd. In a wheel, the combination of a hub, a rim, spokes secured in perforations of the rim, an inner pneumatic tube, an outer covering, a band engaging one margin of the covering and securing it to the rim, and mechanism connecting the ends of the band and adapted to draw and hold it taut, the covering having an extended flap lying between the pneumatic tube and the heads of the spokes and overlapping the margin that is engaged by the band as aforesaid, the margin of said flap having a bead lying outside of the band, substantially as set forth.

No. 51,778. Process of Evacuating Incandescent Lamps. (Procédé d'évacuation de lampe incandescente.)

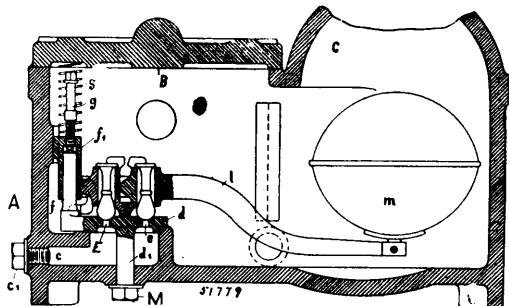


Arturo Maligunani, Udine, Italy, 26th March, 1896; 6 years. (Filed 8th February, 1895.)

Claim.—1st. A process for producing a vacuum in the bulbs of incandescent lamps, consisting in first introducing into a tubular elongation of said bulb suitable substances capable of being gasified by heat and combining with the gases generated by the filament when brought to incandescence to form solid or liquid precipitations, then exhausting the said bulb by means of a pump and sealing the said tubular elongation up, then bringing the filament to intensive incandescence and simultaneously heating the substance in the elongation aforesaid and finally soldering off the said elongation in the manner and for the purpose substantially as described. 2nd. In a process for producing a vacuum in the bulbs of incandescent lamps consisting in first introducing into a tubular elongation of the bulb, a substance, or substances having the qualities specified, exhausting the bulb by means of a pump, sealing the said tubular elongation, then bring the filament to intensive incandescence and simultaneously heating the said substance or substances in the elongation and sealing off the said elongation, the application in the bulb of ethers or other suitable hydrocarbonates during the process in the manner and for the purpose, substantially as described.

No. 51,779. Steam Water Outlet Appliance.

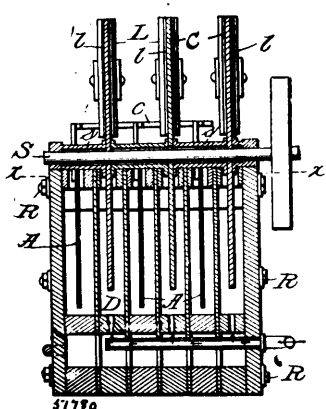
(*Applique pour voie d'écoulement de la vapeur.*)



Albert Flachsmann, St. Petersburg, Schlüsselburger, Prospect House 2, Russia, 26th March, 1896; 6 years. (Filed 18th February, 1895.)

Claim.—1st. The arrangement of two or more valves of equal or differet section alongside of or behind each other in such a manner that by means of a suitable device connected with the ball-float, first one valve and thereupon, besides it, a second valve opens, according to the quantity of condensation-water formed, the socket of the first valve that is raised by the float-lever being limited in its stroke by that of the next one which it raises, thus transferring the fulcrum of the float-lever from the fulcrum of the first valve-socket to that of second. 2nd. The arrangement of two or more delivery-valves one above the other, in such a manner that the cone of the lower valve which is perforated in the longitudinal axis, at the same time forms the seat of the upper valve-cone, so that on the water rising, first of all the upper valve and then by means of a suitable lever-transmission, actuated by the impact of a valve-socket against the one just below it, the next following lower valve is opened.

No. 51,780. Electrolytical Production of Oxid and Carbonate of Nickel. (*Production d'oxyde et de carbonate de nickel.*)



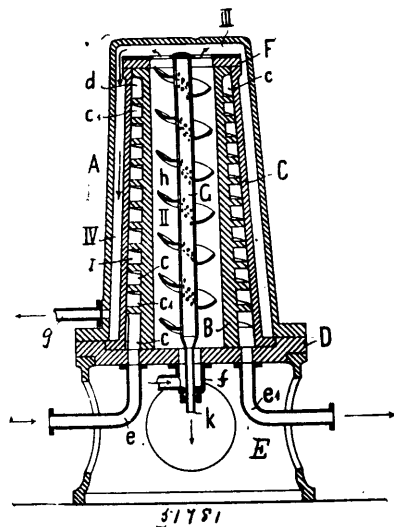
Dr. Carl Hoepfner, Griessen, Germany, 26th March, 1896; 6 years. (Filed 11th July, 1894.)

Claim.—1st. The process of obtaining metals in the form of an oxid or carbonate, and particularly oxid or carbonate of nickel, which consists in electrolysing a chlorid of a metal of the alkalies or f an alkaline earth, or the respective bromides, iodides or sulfates

thereof, and introducing a chlorid of the metal to be converted into an oxid or carbonate, as nickel chlorid, into the cathode electrolyte in such proportion as to prevent the conversion of the last-named chlorid into a metallic form, substantially as described. 2nd. The process of obtaining nickel in the form of an oxid and free chlorine, which consists in electrolysing a chlorid of the metals of the alkalies or of an alkaline earth, and introducing chlorid of nickel into the cathode electrolyte in such proportions that there will at all times be present an excess of the alkali or alkaline earth, for the purpose as set forth.

No. 51,781. Feed Water Heater.

(*Chaufeur d'eau d'alimentation.*)

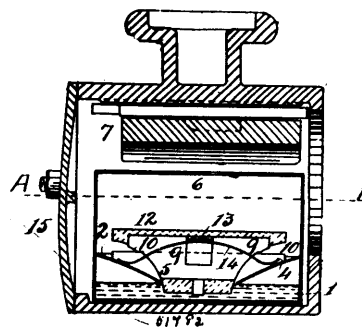


Hugo Kohl, Euskirchen, Rhineland, Prussia, 26th March, 1896; years. (Filed 11th May, 1894.)

Claim.—1st. Heater for feed-water, distinguished by the arrangement of a double-spiral *a a*, situated on the exterior surface of a tube B, and made tight by the casing C which is placed over it in such a manner that two passages turned like a screw and running between each other, *cc*, are formed, being connected with each other at one end by means of a ring-passage *d*, but forming separate outlets at the other end. 2nd. In such heaters the insertion of a tube G in the cylindrical steam-chamber II and provided with a spiral shaped groove *h* on the outside and fine holes *i* for the carrying off of the waste-water.

No. 51,782. Railway Axle Lubricator.

(*Graisneur.*)

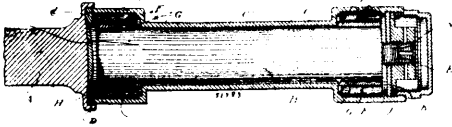


William Silver, Tamworth, New South Wales, 26th March, 1896; 6 years. (Filed 2nd March, 1896.)

Claim.—1st. A railway axle lubricator consisting of an oil reservoir with a dished-in top plate open at the centre and a T section swab, held in a yoke, which is supported on a spring seat, which gives the swab facility for automatic adjustment and keeps it in contact with the axle, substantially as described. 2nd. In a railway axle lubricator, an oil reservoir having its top side dished inwards towards its central opening in which the end of the swab is placed, whereby slopping and spilling of oil is entirely prevented and the back flow of oil directed into the reservoir, substantially as described. 3rd. A railway axle lubricator comprising a non-spilling, drip catching oil reservoir seated in the bottom of the axle box, and a swab

which is adjusted and held in contact with the axle by a yoke and spring seat, said swab dipping into the reservoir and capable of settling itself therein to keep in contact with the axle, substantially as described. 4th. In a self-contained railway axle lubricator making the oil reservoir with a dished-in top plate to prevent oil slopping and mounting the swab on a spring seat resting on said top plate which gives it facility for automatic adjustment whilst keeping its top end in contact with the axle and its lower end dipping in the oil, substantially as described. 5th. In a self-contained railway axle lubricator, the combination with a swab for conveying oil from the reservoir to the axle, of a reservoir having vertical guard plates to catch the oil spray from the axle, and a dished-in top plate with a central swab aperture for preventing the oil from slopping or splashing out, substantially as described.

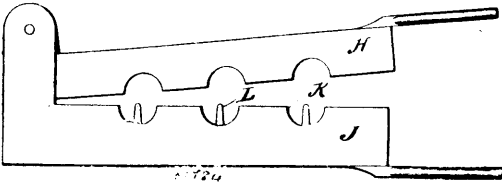
No. 51,783. Roller Bearing. (Coussinet à rouleaux.)



Pierre Dansereau, Montreal, Quebec, Canada, 26th March, 1896; 6 years. (Filed 2nd March, 1896.)

Claim.—The combination with an axle journal having a fixed collar at its inner end, of a sleeve or box not touching the journal and reduced in diameter opposite the point where spokes are inserted into the hub and enlarged at either end, tempered bushes G, rollers F, and means for holding the rollers in place, substantially as described and for the purposes set forth.

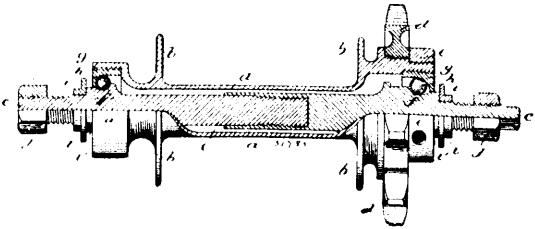
No. 51,784. Electric Arc Lamp Carbon. (Carbone pour lampes à arc.)



Theodore M. Foote, Chicago, Illinois, U.S.A., 26th March, 1896; 6 years. (Filed 2nd March, 1896.)

Claim.—1st. As a new article of manufacture, a carbon for electric arc lamps having a longitudinal groove therein extending for such a depth into the carbon as to penetrate into the crater or apex formed at the end of said carbon. 2nd. An apparatus for forming the herein described carbon for electric arc lamps consisting of forming members or parts hinged together each of which members or parts have semi-circular indentures therein and one of said parts or members having projecting ridges adapted to penetrate the material and form the groove in the carbon as the material is compressed into the form of a carbon.

No. 51,785. Journal for Bicycles, etc. (Tourillon pour bicycles, etc.)

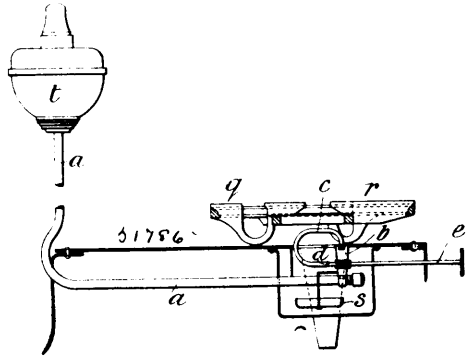


Charles Truman, Toledo, Ohio, U.S.A., 26th March, 1896; 6 years. (Filed 2nd March, 1896.)

Claim.—1st. In a journal for bicycles, in combination with the hub, a spindle in two parts, a ball-bearing cone on each of said two parts formed integral therewith, and a male and female screw at the meeting ends of said two parts of said spindle whereby said ball-bearing cones may be adjusted in relation to each other, substantially as and for the purpose specified. 2nd. In a journal for bicycles, in combination with the hub, a spindle in two parts, a ball-bearing cone on each of said two parts formed integral therewith, and a male and female screw at the meeting ends of said two parts of said spindle whereby said ball-bearing cones may be adjusted in relation to each other, and a square head or equivalent device at the outer extremity of said spindle adapted to receive a wrench or key whereby the adjustment of the ball-bearing cones may be effected from outside the fork-ends of the wheel, substantially as shown and described, for the purpose specified. 3rd. In a journal for bicycles, in combination with the hub, a spindle in two parts, a ball-bearing

cone on each of the two parts formed integral therewith, a male and female screw at the meeting ends of said two parts of said spindle, a shoulder *i*¹, upon each of said two parts of said spindle, washers *i*, resting against said shoulders and nuts *j*, on the projecting screw-threaded ends of said spindle, all substantially as and for the purpose specified. 4th. A journal for bicycles or other vehicles, comprising a hub, a sprocket-wheel screwed thereon, a ball-bearing cup screwed therein, in combination with a two-part spindle passing therethrough, and adjustably screwed together at their meeting ends, ball-bearing cones on each of said two parts of said spindle formed integral therewith, anti-friction balls in the ball-race formed by said screw-cups and said cones, a shoulder and washer *i*, *i*¹, on each of the two parts of said spindle, nuts on the outer extremities of said spindle adapted to engage the fork-ends of the bicycle-frame, and a square head or equivalent device at the outer extremity of one of said spindle parts, all substantially as and for the purpose specified.

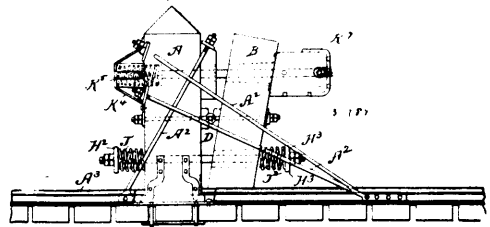
No. 51,786. Spirit Cooking Stove. (Poêle à cuire.)



Otto Hurschmann, Barmen, Germany, 27th March, 1896; 6 years. (Filed 2nd March, 1896.)

Claim.—1st. In a spirit cooking or heating apparatus in which the fuel is vaporized in a vaporizing chamber *b*, and made completely gaseous in a small tube *c* exposed to the burner flame, the arrangement of the valve *e* in such manner that it enters or covers the gas outlet opening from the outside and thus opens or closes it and so regulates the flame, substantially as described for the purpose set forth. 2nd. A cooking or other utensil carrier consisting of one piece and secured by screws, bolts or other means, one part of the stays connecting the outer and inner rings also acting as supports for the whole carrier whilst the other part projects so far within the small ring that a carrier for small vessels is formed. 3rd. In spirit cooking or heating apparatuses, the arrangement of a removable vaporizing chamber which is secured to the spirit gas apparatus separately from the safety casing characterized by a clear way through the vaporizing chamber being created for cleansing purposes by removing the gas outlet pipe and spirit supply pipe and by the flame spreader being provided with air inlet openings. 4th. The arrangement and construction of spirit cooking stoves, substantially as described with reference to the drawings.

No. 51,787. Railway Buffer Arrester. (Tampon de choc pour chemin de fer.)

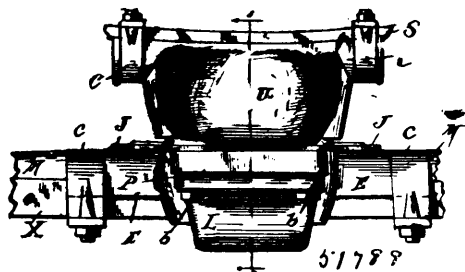


John A. Weber, Chicago, Illinois, U.S.A., 27th March, 1896; 6 years. (Filed 2nd March, 1896.)

Claim.—1st. In an arresting device for railway tracks, the combination with a stationary buffer post held between the rails, of a movable buffer post hinged to the stationary buffer post and adapted to receive the strain of the shock from forcible impact and relieve said shock by a traverse of the movable buffer post thereunder. 2nd. In an arresting device for railway tracks, the combination with a stationary buffer post held between the rails, of a movable buffer post hinged to the stationary buffer post adapted to receive the strain of the shock from forcible impact and relieve said shock by a traverse of the movable buffer post thereunder together with a resisting device acting in opposition to the movement of said movable buffer post. 3rd. In an arresting device for railway tracks, the combination with a stationary buffer post held between the rails, of a movable buffer post hinged to the stationary buffer post and adapted to receive the strain of the shock from forcible impact and

relieve said shock by a trasverse of the movable buffer post thereunder together with a pull rod and spring acting in opposition to the movement of the movable buffer post and adapted to return the same into a position to receive another impact. 4th In an arresting device for railway tracks, the combination with a stationary buffer post held between the rails, of a movable buffer post hinged to the stationary buffer post and adapted to receive the strain of the shock from forcible impact and relieve said shock by a traverse of the movable buffer post thereunder together with a pull rod and a spring acting in opposition to the movement of the movable buffer post and adapted to return the same into a position to receive another impact together with an arrester head, a movable holding rod therefor and a resisting device for said arrester head.

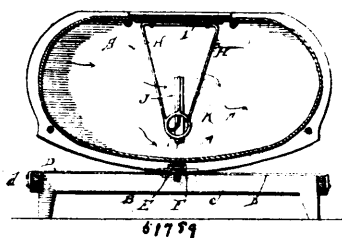
No. 51,788. Ball and Socket Fifth Wheel.
(*Roue d'avant-train à boule et douille.*)



Thomas A. Watson, Bentonville, Arkansas, U.S.A., 27th March, 1896; 6 years. (Filed 2nd March, 1896.)

Claim.—1st. In a ball and socket fifth wheel having a two-part casing divided horizontally and bolted together at points both in front and to the rear of the axle of the vehicle, a pair of brace-bars arranged, one on each side of the fifth wheel and secured to the casing by the same bolts that unite the two parts of the casing, substantially as described and specified. 2nd. In a ball and socket fifth wheel in which the axle is secured to the ball, a socket to receive said ball having side openings through which the axle is projected, and having a ridge transverse with relation to the axle integral with the casing and upon which the ball rests, said ridge having sloping sides, substantially as described and for the purpose specified. 3rd. In a ball and socket fifth wheel in which the socket is secured to the body of the vehicle and the ball to the axle, and in which the lower portion of the ball is cut off, a ridge or knife edge support for the ball, transverse with relation to the axle, substantially as described and for the purposes specified.

No. 51,789. Churn. (*Baratte.*)



Eugene P. Smith, Manchester, Virginia, U.S.A., 27th March, 1896; 6 years. (Filed 2nd March, 1896.)

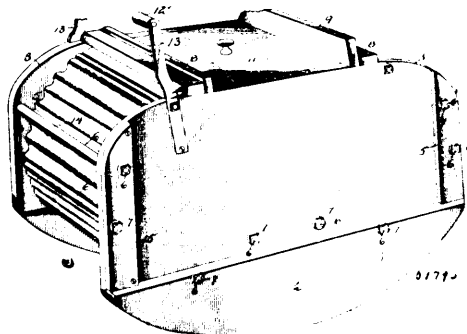
Claim.—1st. In a rocking churn, the combination with a rectangular frame having elastic bands upon the upper faces of its side rails and attached to the ends thereof, of the rocking churn body having recesses in its bottom and seated upon the elastic bands, the plates fitting over said recesses, and the clips attached to the said bands and adapted to detachably engage said plates, substantially as shown and described. 2nd. A deflector for working body churns consisting of the part J, the wires H, coiled as described, to form springs K, adapted to normally hold the part J in the same plane as that of the wires H, but adapted to be swung backward and forward by the force of the cream, substantially as described. 3rd. In combination with the frame, the rubber bands, the hooks E thereon, a rocking churn body, the plates F adapted to be engaged by the hooks E carried on the rubber bands D, and the coiled springs E' designed to hold the said hooks and plates in an engaging relation, substantially as shown and described.

No. 51,790. Washing Machine. (*Machine à laver.*)

Enoch E. Ritche, Howard Lake, Minnesota, U.S.A., 27th March, 1896; 6 years. (Filed 29th February, 1896.)

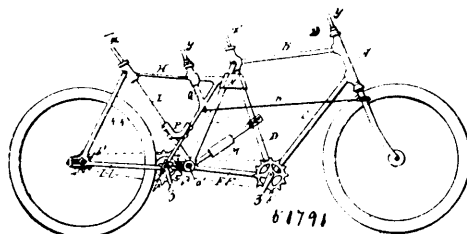
Claim.—1st. In a washing machine, the combination with a body provided with rockers, legs pivotally mounted on the rockers and arranged to fold above the lower edges thereof, when not in use, and provided with perforations, a rung connecting the legs, and springs

mounted on the rung and engaging the legs and forcing the latter outward into frictional engagement with the rockers, substantially as and for the purpose described. 2nd. In a washing machine, the



combination of sides, a continuous strip of corrugated sheet metal arranged between the sides and forming the bottom and ends of the washing machine, the bottom being arched and the ends being concavely curved, transverse rods connecting the sides and arranged at intervals along the bottom and ends and fitting in the grooves formed by the corrugations and rockers secured to the sides, substantially as described.

No. 51,791. Bicycle. (*Bicycle.*)

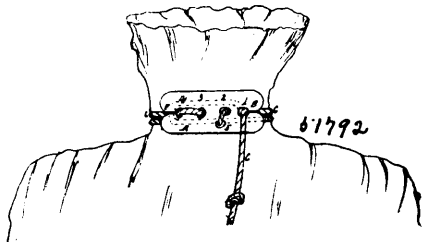


Charles Ellis Bryant and Arthur Lawren Sargeant, both of Attica, Indiana, U.S.A., 27th March, 1896; 6 years. (Filed 29th February, 1896.)

Claim.—1st. In combination with an ordinary single seated safety bicycle without change in its structure, of a supplemental frame, consisting of rods, braces and saddle-post corresponding to those of the original frame, the bar I, joining the casing c, in front of the crank-shaft, and the bars I, and V, crossing each other above the crank-shaft, and the bar H, being removable, this supplemental frame carrying an additional seat, guide and driving mechanism, and forming a rear section to and from which the driving wheel is shifted, attachable and detachable by suitable connections, constituting a bicycle convertible into a one or two-seated machine at will, and for the purpose shown and described. 2nd. In combination with the frame of an ordinary safety bicycle, and of a supplemental frame of like parts, attachable and detachable by means of suitable connections of a clamping device for uniting the two sections of frame at their lower line, consisting of two tubular casings firmly united by two connecting rods, the forward casing bearing a bolt with threaded ends engaging the side rods of frame at the point from which the wheel is removed, and the rear casing bearing an additional axle and its driving mechanism, said device having on the front casing ears or other arrangement for attaching the ends of the saddle-post and of a brace rod, and the rear casing having extension of connecting rods, for attaching the ends of the frame rods which receive the wheel in its new position, and ears for attaching a forked brace rod or post, as and for the purpose shown and described. 3rd. In combination with the frame of an ordinary safety bicycle, of a supplemental frame attachable and detachable, and of a clamping device, uniting the two sections at their lower line, of another clamping device uniting them at their upper line, consisting of three parts, of a triangular core fitting into the angle between the saddle-post and the two rods which descend to receive the wheel in the original frame, and having on its front face a semi-circular channel embracing the saddle-post, and of a plate fitted to the rear face of the core, with two semi-circular channels embracing the two rods, and fitted with corresponding holes so as to be firmly bolted together about the post and rods, also, the rear plate having the end of the rod H, brazed or otherwise fastened thereto and thus uniting the two sections of the frame, as and for the purpose shown and described. 4th. The combination with the frame of an ordinary safety bicycle, of a supplemental attachable and detachable frame, and of connecting devices for uniting them at their upper and lower lines, of a crank axle fitted into the rear casing of the lower clamping device, carrying an additional driving mechanism, having each end of said axle flattened, the sprocket-wheels having corresponding oblong slots, and each end of said axle threaded and provided with bearing cone end nuts, for adjusting sprocket-wheels longitudinally, and holding them in place, as and for the purpose shown and described. 5th. In combination

with the frame of an ordinary safety bicycle of supplemental attachable and detachable frame, and of connecting devices for uniting them at their upper and lower lines, of a brace rod the one end attached to the lower clamping device by means of ears and bolt, or other suitable fastening, and thence extending upward and forward and fastened to the front saddle post, said brace adjustable in length by being in parts, with right and left hand threads on end pieces, the ends entering a threaded casing, as and for the purpose shown and described. 6th. In combination with the frame of an ordinary safety bicycle, of a supplemental attachable and detachable frame, and of devices for uniting the two at their upper and lower lines, of a brace or post the lower end forked and attached to the lower clamping device between the sprocket-wheels, thence running forward and upward to the rod H, to which it is attached, and receiving and supporting the upright post of the guide handle, as and for the purpose shown and described. 7th. In combination with the frame of an ordinary safety bicycle, of a supplementary attachable and detachable frame, and of devices for uniting the two at their upper and lower lines, of a brace fitted into the angle between the lower ends of the rear saddle post and the post V, the under surfaces concave and fitted to said posts, the edge provided with ears to which are fitted clamps, embracing the post and rod, and secured in place by screws, as and for the purpose shown and described. 8th. In a bicycle capable of being extended and contracted, so as to be used either as a single or a double seated machine, the combination of the frame of an ordinary safety bicycle without alteration, of a supplemental frame of corresponding parts, attachable and detachable by means of suitable connections and carrying an additional seat, guide and driving mechanism, of a clamping device of triangular form, attached to the back-bone-rod of the supplemental frame, and embracing the saddle post and straddle rods of the original frame, immediately below their point of union, of a second clamping device for uniting the frames at their lower line, having two tubular casings united by two connecting rods, the one casing carrying a bolt with threaded ends and nuts to engage and hold the side rods of the frame when the wheel is removed to the rear frame, and the other casing carrying the crank axle and its driving mechanism, and of a brace-rod extending from the lower clamping device to which one end is attached, to the front saddle post to which the other end is attached, and adjustable in length by being in parts, the ends of two parts having right and left hand threads, and entering a threaded casing by means of which the tension is regulated, of a forked brace-rod extending from the lower clamping device to the back-bone-rod, and attached to each and supporting the saddle post, and of a V-shaped clamp between the saddle post and forked brace-rod, as and for the purpose shown and described.

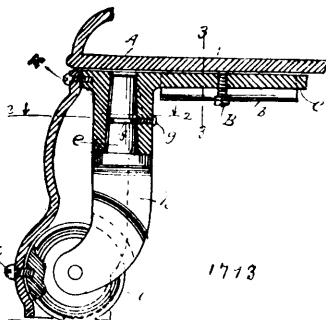
No. 51,792. Tie for Sacks, etc. (Attache pour sacs. etc)



William Gibson, Knowlton, Quebec, Canada, 27th March, 1896; 6 years. (Filed 29th February, 1896.)

Claim.—The combination with the cord C, and flexible plate A, of the holes 1, 2, 3, 4, No. 1 and 4, being provided with slits, or slots, to the ends of the flexible plate, made or framed in a straight line along the centre of length of the plate, substantially as and for the purpose hereinbefore set forth.

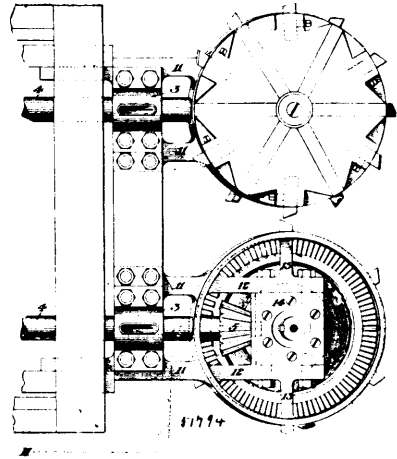
No. 51,793. Stove Leg. (Pates de poêle.)



Elbert J. Evans and Frank W. Harland, both of Waukesha, assignees of Charles L. Allen, Pewaukee, all of Wisconsin, U.S.A., 27th March, 1896; 6 years. (Filed 2nd March, 1896.)

Claim.—1st. A stove leg in the form of a caster, a fixed shield for the leg, and a screw that extends through the shield into a recess in the caster wheel. 2nd. A stove leg in the form of a caster, a shield in detachable connection with the socket portion of the caster, and a suitable plug detachably engaging the shield and the caster wheel.

No. 51,794. Mining Machine. (Machine à mines.)

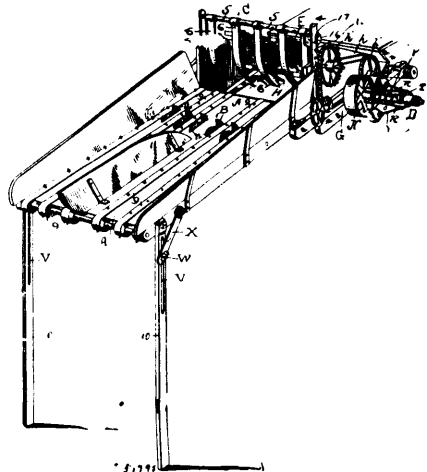


Charles Edward Wolfendale, Allegheny, George William Fritz, Pittsburg, both in Pennsylvania, U.S.A., and James F. Richards, Ottawa, Ontario, Canada, 27th March, 1896; 6 years. (Filed 4th March, 1896.)

Claim.—1st. In a mining machine, the combination of two cutting discs, a driving shaft meshing with one of the said discs, a socket piece as 14 provided with an enlarged cavity on its upper surface, said upper cutting disc being provided with a journal pin having an enlarged head fitting in said cavity and means for securing the journal pin in its socket, substantially as described. 2nd. In a mining machine, the combination with a driving shaft, and upper and lower disc, a bracket as 12, a socket piece supported by the bracket on one side of which the end of the driving shaft has a bearing, said socket piece having an enlarged cavity, a journal pin secured to the upper disc and having an enlarged head fitting in said cavity and a cap 16 for holding said enlarged portion in the cavity, substantially as described. 3rd. In a mining machine, the combination with a driving shaft, and upper and lower discs, a bracket 12, a socket piece supported by the bracket on one side of which the end of the driving shaft has a bearing, said socket piece having an enlarged cavity, a journal pin secured to the upper disc and having an enlarged head fitting in said cavity and a cap 16 for holding said enlarged portion, the washer 17 and screw bolt 18, for securing said journal pin to the upper cutter and the washer 19 and screw 20 for securing the lower cutter to the socket piece, substantially as described.

No. 51,795. Band Cutter and Feeder.

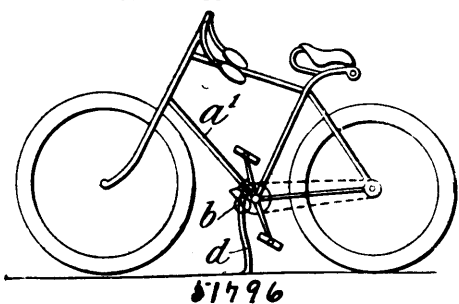
(Coupe-hart et alimentateur automatique.)



John T. Collins, Samuel W. Collins, both of Kokomo, and Joel T. Barker, Danville, all in Indiana, U.S.A., 27th March, 1896; 6 years. (Filed 22nd February, 1896.)

Claim.—1st. The combination with the thrashing-machine, and a feeder operated from a moving part of the thrashing-machine, of a governor comprising a continuously rotated band-pulley supported upon a sleeve, a second sleeve operatively connected with the feeder and mounted upon the same spindle with the first sleeve, weighted arms mounted upon the said first sleeve, a friction disc mounted to turn with and move upon the said second sleeve and having a hub provided with an annular groove, a collar encircling the hub and having projections to enter the annular groove therein, and rods passing through the band-pulley and connecting the weighted arms with the said collar, substantially as for the purpose described. 2nd In a band-cutter and feeder for thrashing-machines, the combination with the table having the bundle feeding and band-cutting devices, and a feeder for receiving the loose grain from the said table and delivering it to the threshor, of a regulator intermediate of the said table and feeder, the same comprising vertically adjustable side standards, a cross-bar connecting the upper ends of the standards and arms mounted upon the said cross-bar and having their lower ends curved and adapted to be turned upon the cross-bar to any required angle and be held in position, substantially as set forth. 3rd The combination in a band-cutter and feeder having a governor comprising a continuously rotated band-pulley, supported upon a sleeve, a second sleeve operatively connected with the feeder, and mounted upon the same spindle with the first sleeve, a friction disc mounted to turn and move upon the second sleeve, and having a hub provided with an annular groove, a split collar encircling the hub, and entering the annular groove therein, of the regulator C, comprising vertically adjustable side standards, a cross-bar connecting the upper ends of the standards, and arms mounted on said cross-bars, said cross-bar having a semi-circular holder mounted on one end, said holder being provided with openings which align with similar openings in one of the side standards for the purposes of receiving a pin to secure the cross-bar against rotation, thereby holding said arms, at the desired angle, with a folding table A, carrying band cutting knives, comprising a series of blades, attached to a metal hub, and adapted to rotate upon a shaft attached beneath said table, a dividing board centrally located on the forward portion of the table, and the grain moving belts provided with teeth, substantially as set forth. 4th. In a band cutter and feeder for thrashing machines, the combination with the table A, of the dividing board 11, mounted upon the table and extending about two-thirds the length thereof from the front, for the purpose of straightening and separating sheaves of grain, and at the same time allowing shattering or loose grain to be fed without removing the divider, the knives B, mounted on a shaft beneath said table, the blades extending through the slots in the table and adapted to cut the bands of sheaves as they are drawn over said knives by the toothed belts 9, the regulator C, comprising vertically adjustable side standards a rotatable cross-bar having arms 6, mounted thereon, said arms depending before the mouth of the feeder and being laterally adjustable, thereby regulating the amount of grain passing from the table to the feeder, all substantially as shown and described.

No. 51,796. Bicycle Stand or Rest.
(Support et appui pour bicycles.)

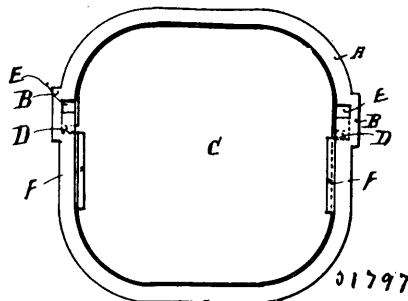


The Automatic Cycle Stand Limited, assignee of Sidney Edgar Spencer, both of London, England, 27th March, 1896; 6 years. (Filed 25th February, 1896.)

Claim.—1st. A bicycle stand or rest having in combination a horizontal hinge pin or shaft journalled in a suitable bearing or device, two legs mounted on such horizontal axis and adapted to swing through one fourth or other suitable part of a circle and at the same time the lower ends thereof to recede from or approach towards one another, and means provided in or on said bearing or device to cause such recession and approach of the legs. 2nd. A bicycle stand or rest having in combination a horizontal hinge pin or shaft journalled in a suitable bearing or device, two legs mounted on such horizontal axis and adapted to swing through one fourth or other suitable part of a circle and at the same time the lower ends thereof to recede from or approach towards one another, means provided in said bearing or device to cause such recession and approach of the legs and a spring adapted to normally keep said legs in the closed position. 3rd. A bicycle stand or rest having in combination a horizontal hinge pin or shaft journalled in a suitable bearing or device, two legs mounted on such horizontal axis and adapted to swing through part of a circle and at the same time the lower ends thereof to re-

cede from or approach towards one another, means provided in said bearing or device to cause such recession and approach of the legs, a spring adapted to normally keep said legs in the closed position and a clamping device for clamping or securing the appliance on or to any convenient part of the bicycle. 4th. In a bicycle stand or rest, the combination with a device provided with oppositely inclined surfaces of a hinge pin or shaft horizontally journalled in said device two legs pivoted to said horizontal axis in such manner that when the legs are swung on said horizontal axis the upper ends thereof are forced to follow the said inclined surfaces and the lower ends are thereby caused to recede from or approach towards one another and a spring to normally keep same in the closed position substantially in the manner and for the purposes hereinbefore set forth. 5th. The construction of a bicycle stand or rest in which the two legs diverge or open and when pressed downward by reason of the upper ends of said legs following fixed oppositely inclined surfaces substantially as and for the purposes hereinbefore set forth.

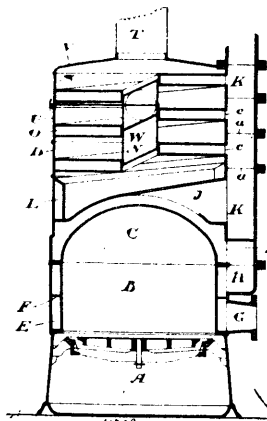
No. 51,797. Sewer Valve. (Clapets d'égouts.)



Jules Colas, Montréal, Québec, Canada, 27m Mars, 1896; 6 ans. (Déposé le 2m Mars, 1896.)

Résumé.—Dans un clapet d'égout, la combinaison du tube A contenant les renforts B et les mortaises en forme de L, renversé E, avec le clapet C basculant sur les essieux D, tel que décrit et pour les fins indiquées.

No. 51,798. Hot Water Heater. (Calorifère à eau.)



Joseph Brinsley Sheridan, Toronto, Ontario, Canada, 27th March, 1896; 6 years. (Filed 25th February, 1896.)

Claim.—1st. In a hot water heater, a section having a water chamber forming a single coil of an advancing spiral, the lower surface of the section forming the top of a similarly shaped smoke flue, substantially as and for the purpose specified. 2nd. In a hot water heater, the combination of a series of sections, each having a water chamber forming a single coil of an advancing spiral, an outer casing forming with the surfaces of the sections a spiral smoke flue, and means for communication between the sections, substantially as and for the purpose specified. 3rd. In a hot water heater, the combination of a series of sections, each having a water chamber forming a single coil of an advancing spiral, an outer casing formed in parts integral with the sections, forming with the surfaces of the sections a spiral smoke flue, and means of communication between the sections, substantially as and for the purpose specified. 4th. In a hot water heater, the combination of a series of sections, each having a water chamber forming a single coil of an advancing spiral surrounding a central cylinder forming a direct smoke flue, a damper located in the said cylinder, an outer casing forming with the surfaces of the sections a spiral smoke flue, and means of com-

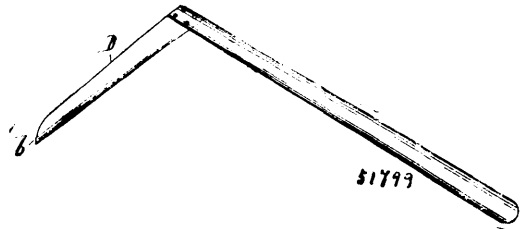
munication between the sections, substantially as and for the purpose specified. 5th. In a hot water heater, the combination of a series of sections, each having a water chamber forming a single coil of an advancing spiral, an outer casing formed in parts integral with the sections forming with the surfaces of the sections a spiral smoke flue, and a water post formed in parts with the sections and communicating with the water chambers therein, substantially as and for the purpose specified. 6th. In a hot water heater, the combination of a series of sections, each having a water chamber forming a single coil of an advancing spiral, an outer casing formed in parts integral with the sections forming with the surfaces of the sections a spiral smoke flue, means of communication between the sections and a water post formed in parts with the sections, and communicating with the lowest parts of the water chambers therein, and a water post similarly formed to communicate with the highest parts of the said water chambers, substantially as and for the purpose specified. 7th. In a hot water heater, a section forming a dome-shaped combustion chamber above the fire-pot, an opening being left at the front part of the dome to serve as a smoke exit, and a water chamber formed in the section about the dome, substantially as and for the purpose specified. 8th. In a hot water heater, a section forming a dome-shaped combustion chamber above the fire-pot, an opening being left at the front part of the dome to serve as a smoke exit, and a water chamber formed in the section about the dome, the portion of the dome about the opening being sharply turned down to form an eddy in the combustion chamber, substantially as and for the purpose specified. 9th. In a hot water heater, a section forming a dome-shaped combustion chamber above the fire-pot, an opening being left at the front part of the dome to serve as a smoke exit, and a water chamber formed in the section about the dome, the portion of the dome about the opening being sharply turned down to form an eddy in the combustion chamber in combination with a damper located in the outer casing of the heater in proximity to the turned down portion of the section so that an air blast may be admitted to meet the products of combustion eddying in the chamber, substantially as and for the purpose specified. 10th. In a water heater, the combination of the annular fire-pot section B, having a water chamber E divided by the half diaphragm F, the dome-shaped combustion chamber section C with a smoke exit therein, the sections D each having a water chamber forming one coil of an advancing spiral, an outer casing U formed in parts integral with the sections D and forming with the surfaces of the sections a spiral smoke flue, the water posts K and M communicating with one another at their lower ends, formed in parts integral with the sections, and having openings *b* and *c* communicating with the sections D, and an opening communicating with the water chamber of the section C, a water post H formed in parts integral with the sections B and *c* and having openings therein communicating with the water chambers of the said sections, a water inlet G being formed in the fire-pot sections B, and a water outlet in the water post K, substantially as and for the purpose specified. 11th. In a water heater, the combination of the annular fire-pot section B, having a water chamber E divided by the half diaphragm F, the dome-shaped combustion chamber section C with a smoke exit therein, the sections D each having a water chamber forming one coil of an advancing spiral surrounding the central cylinder forming a direct smoke flue, a damper located in the said cylinder, and outer casing U formed in parts integral with the sections D, and forming with the surfaces of the sections a spiral smoke flue, the water posts K and M communicating with one another at their lower ends, formed in parts integral with the sections and having openings *b* and *c* communicating with sections D, and an opening communicating with the water chamber of the sections, a water post H formed in parts integral with the sections B and *c* and having openings therein communicating with the water chambers of the said sections, a water inlet G being formed in the fire-pot sections B, and a water outlet in the water post K, substantially as and for the purpose specified. 12th. In a water heater, the combination of the annular fire-pot section B having a water chamber E divided by the half diaphragm F, the dome-shaped combustion chamber section C with a smoke exit therein, having a dome-shaped water chamber therein and an independent annular water chamber L which may be connected by pipes and nipples with a kitchen boiler or with the other sections of the heater, the sections D each having a water chamber forming one coil of an advancing spiral, an outer casing U formed in parts integral with the sections D and forming with the surfaces of the sections a spiral smoke flue, the water posts K and M communicating with one another at their lower ends, formed in parts integral with the sections, and having openings *b* and *c* communicating with the sections D, and an opening communicating with the water chamber of the section C, a water post H formed in parts integral with the sections B and C and having openings therein communicating with the water chambers of the said sections, a water inlet G being formed in the fire-pot section, and a water outlet in the water post K, substantially as and for the purpose specified.

No. 51,799. Corn Cutter. (*Machinè à couper le ble d'inde.*)

Austin Holsopple, Geistown, Pennsylvania, U.S.A., 27th March, 1896; 6 years. (Filed 26th February, 1896.)

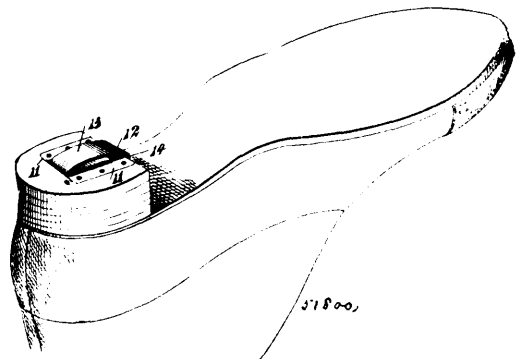
Claim.—1st. A corn cutter comprising a handle, and a straight blade secured in one end thereof, substantially as shown and described. 2nd. A corn cutter comprising a handle, and a straight

blade secured in one end thereof, said blade being set in the handle at an inclination thereto, the angle between the blade and handle being greater than a right angle, substantially as shown and de-



scribed. 3rd. A corn cutter comprising a handle, and a straight blade secured in one end thereof, said blade being set in the handle at an inclination thereto, the angle between the blade and handle being greater than a right angle, and said blade being tapered in cross-section from the edge to the back and pointed, substantially as shown and described.

No. 51,800. Spring for the Soles and Heels of Boots and Shoes. (*Ressort pour talons et semelles de chaussures.*)

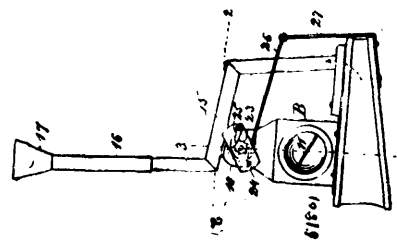


George Elbridge Swan, Beaver Dam, Wisconsin, U.S.A., 28th March, 1896; 6 years. (Filed 28th February, 1896.)

Claim.—1st. A spring tread for boots and shoes, consisting of a spring plate bent upon itself to form a body and a wearing or tread member, the wearing or tread member being free at one end and arranged to have movement at its free end in a vertical direction, as and for the purpose specified. 2nd. A spring tread for boots and shoes, comprising a well section, a base section of a spring material located within the well section, and a wearing or tread section curved over the base section and having its forward end free and arranged for vertical movement independently of the other portions of the device, as and for the purpose specified. 3rd. A spring tread for boots and shoes, the same being constructed of a single piece of spring material, and comprising practically a base portion adjacent to the surface of the boot or shoe to which the device is to be secured, and a wearing or bearing section extending beyond the surface to which the device is to be applied, one end of the wearing or bearing surface being free and adapted for movement to and from the surface supporting the device, as and for the purpose specified.

No. 51,801. Machine for Distributing Insect Powder.

(*Machinè à distribuer la poudre à insecte.*)

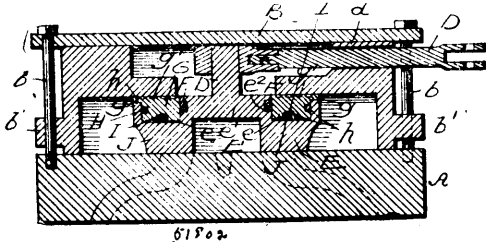


John B. Brown, Eau Claire, Wisconsin, U.S.A., 28th March, 1896; 6 years. (Filed 28th February, 1896.)

Claim.—1st. In a machine for distributing insect-powder, the combination with a bellows, a receptacle carried thereby and having its free end contracted, a feed wheel located in the contracted portion of the receptacle, substantially filling the same and operated from the bellows, the outlet of the receptacle being above the said wheel, and a valve located above the outlet of the said receptacle, of a delivery and force pipe connected with the bellows and connected with the outlet of the receptacle, an means, substantially as shown and described, for controlling the distribution of the material

at the outlet end of the delivery pipe, as and for the purpose set forth. 2nd. The combination of a bellows, a powder receptacle secured thereto and having a contracted upper end, a serrated feed wheel within said upper end, a valve closing the upper end, a force pipe connected to the bellows and communicating with said upper end of the receptacle, and a connection between the bellows and the feed wheel, substantially as described. 3rd. In a machine for distributing insect-powder, the combination of a bellows, a receptacle carried thereby and having an open upper end, a valve commanding said open upper end, a wheel within the upper end and capable of feeding and crushing the powder, means for operating the wheel, and a force pipe connected to the bellows and communicating with the upper end of the receptacle, substantially as described. 4th. In a machine for distributing insect-powder, the combination of a bellows, a receptacle affixed thereto, said receptacle having a contracted upper end with an opening therein, a serrated feed wheel located in said contracted end, the contracted end, the contracted end having an open housing at one side and contiguous to a closed housing communicating with the interior of the receptacle, a valve operating in said housings, a force pipe connected to the bellows and communicating with the contracted end of the receptacle, and means for operating the feed wheel, substantially as described. 5th. In a machine for distributing insect-powder, the combination of a bellows, a receptacle secured thereto and having an open upper end, a valve commanding said end, a serrated feed wheel within the receptacle and adjacent to the valve and having one end of its axis extending beyond the receptacle, a ratchet-wheel fixed to the said axis and outside of the receptacle, a link loosely mounted on the extended axis, a dog on the link and operating with the ratchet-wheel, and means for swinging the link, substantially as described.

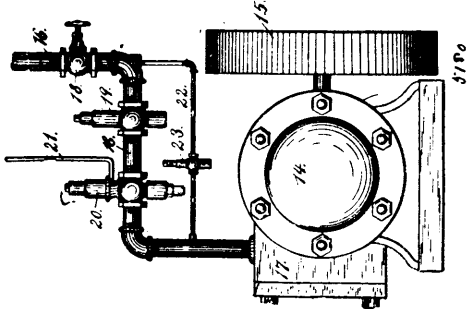
No. 51,802. Balanced Slide Valve. (Soupape à bascule.)



Daniel H. Brown, McComb, Mississippi, U.S.A., 28th March, 1896; 6 years. (Filed 2nd March, 1896.)

Claim.—1st. A slide valve comprising a body portion with annular chamber, neck portion and vertical extension, a friction ring fitted in said chamber and having an inclined annular groove upon its under face, and a split ring in said groove, substantially as specified. 2nd. A slide valve comprising a body portion with annular groove and neck having peripheral groove, split rings in said annular groove, a friction ring with peripheral groove and annular inclined groove upon its under face, split ring in the peripheral groove upon its under face, split ring in the peripheral groove of said ring, and a split ring in the groove on the under face of the friction ring for seating the latter, as set forth.

No. 51,803. Apparatus for Automatically Controlling Motive Power for Supplying Air to Furnaces. (Appareil automatique à contrôler la force motrice pour fournir l'air aux fournaies.)

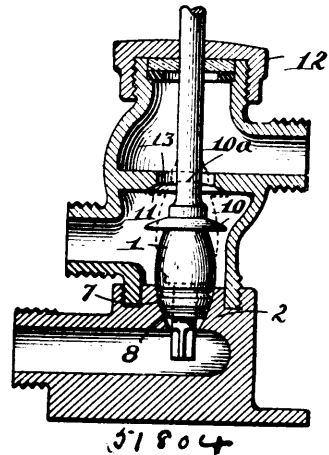


John Engelbert Beckman, William Edgar Woolley, Henry Montgomery Gerrans and George Henry Woolley, all of Buffalo, New York, U.S.A., 28th March, 1896; 6 years. (Filed 26th February, 1896.)

Claim.—1st. An automatic apparatus for regulating the motive power for supplying an artificial draft under furnaces consisting of a fan or blower, an engine for driving the fan, a valve in the supply pipe of the engine, a separate pipe connected with the pressure of the boiler and adapted to close this valve in the supply pipe completely at a certain boiler pressure, and a by-pass valve for permitting a small flow of pressure through or by said regulating valve, as

and for the purpose set forth. 2nd. An automatic apparatus for regulating the motive power for supplying an artificial draft under furnaces consisting of a fan or blower, an engine for driving the fan, a valve in the supply pipe of the engine, and a separate pipe connected with the pressure of the boiler and adapted to close this valve in the supply pipe completely at a certain boiler pressure, as and for the purpose set forth. 3rd. An automatic apparatus for regulating the motive power for supplying an artificial draft under furnaces consisting of a fan or blower, a motor for driving the fan, a regulating valve in the supply pipe of the motor connected with and adapted to be operated by the pressure of the boiler, a by-pass valve for permitting a small flow of pressure through or by said regulating valve, a second regulating valve in the supply pipe, a diaphragm chamber one side of which is connected with the blast pressure and the diaphragm of which controls a lever, and connections between said lever and second valve for automatically operating the latter by the blast pressure, as and for the purpose set forth. 4th. An automatic apparatus for regulating the motive power for supplying an artificial draft under furnaces consisting of a fan or blower, an engine for driving the fan, a regulating valve in the supply pipe of the engine connected with and adapted to be operated by the pressure of the boiler, a second regulating valve in the supply pipe of the engine, and means for automatically operating this valve by blast pressure, as and for the purpose set forth. 5th. An automatic apparatus for regulating the motive power for supplying an artificial draft under furnaces consisting of a fan or blower, a motor for driving the fan, a regulating valve in the supply pipe of the motor connected with the pressure of the boiler and adapted to close completely at a certain steam pressure, a by-pass valve for permitting a small flow of pressure through or by said regulating valve, and a second automatically-operated reducing valve in the supply pipe of the engine, as and for the purpose set forth.

No. 51,804. Valve. (Soupape.)



Howard Daniel Waters, Buffalo, New York, U.S.A., Assignee of William John McKay, Hamilton, Ontario, Canada, 28th March, 1896; 6 years. (Filed 2nd March, 1896.)

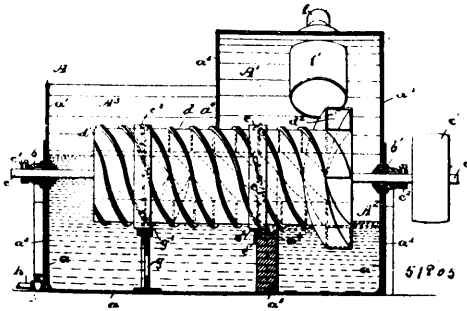
Claim.—1st. An elastic double-faced valve adapted for use with two valve-seats, having at one end a valve-face 10, of larger diameter than the body of the valve, and at its opposite end a plurality of valve-faces of smaller diameter, the whole formed of one integral piece, substantially as and for the purposes described. 2nd. An elastic double-faced valve adapted for use with two valve seats, having at one end a valve face 10, of larger diameter than the body of the valve, and at its opposite end a face of smaller diameter, the whole formed of one integral piece, substantially as and for the purpose described.

No. 51,805. Smoke Condenser. (Condenseur de fumée.)

George Heinkel, Assignee of Samuel Shugard Pridham, both of Newark, New Jersey, U.S.A., 28th March, 1896; 6 years. (Filed 2nd March, 1896.)

Claim.—1st. In an apparatus for condensing smoke, gases or the like, in combination, a tank, having a dividing wall or partition extending from the bottom of the apparatus, and a conveyor drum rotatively arranged in said tank, said dividing wall or partition being made to embrace the lower sides of said drum to form a receiving chamber on one side and a discharge chamber on the other side of said wall, and said conveyor drum receiving water from the receiving chamber and discharging it into the discharge chamber, when in operation, and thereby maintaining a lower level of the water in the receiving chamber than that of the water in the discharge chamber, substantially as and for the purpose set forth. 2nd. In an apparatus for condensing smoke, gases or the like, in combination, a tank, having a dividing wall or partition, and a conveyor drum rotatively arranged in said tank, said dividing wall or partition hav-

ing a semi-circular bearing-portion made to embrace the sides of said drum, to form a receiving chamber on one side and a discharge chamber on the other side of said wall, a rubber or other like packing ring *c* on said drum fitting into the bearing-portion of said divid-



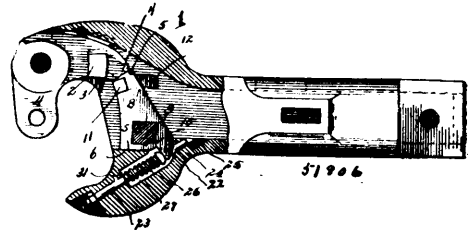
ing wall, and said conveyor drum being adapted to receive water from the receiving chamber and discharging it into the discharge chamber, when in operation, and thereby maintaining a lower level of water in the receiving chamber than that of the water in the discharge chamber, substantially as and for the purpose set forth. 3rd. In an apparatus for condensing smoke, gases or the like, the combination with a tank, and a dividing wall or partition extending from the bottom of the apparatus, of a conveyor drum open at one end and having two or more scoops at its other end, said dividing wall being made to embrace the lower sides of said drum and forming a receiving chamber and a discharge chamber in said tank, said drum during its revolutions, having but one of its scoops submerged at a time in the water in said receiving chamber, and discharging the water into the discharge chamber, and thereby maintaining a lower level of the water in the receiving chamber than that of the water in the discharge chamber, substantially as and for the purpose set forth. 4th. In an apparatus for condensing smoke, gases or the like, the combination with a tank, and a dividing wall or partition having a semi-circular bearing portion, of a conveyor drum rotating in said bearing portion, a rubber or other like packing ring *c* on said drum fitting into said bearing portion of said dividing wall, said dividing wall forming a receiving chamber and a discharge chamber in said tank, a discharge opening in one end of said drum, two or more scoops at the other end of said drum, said drum during its revolutions having but one of its scoops submerged at a time in the water in said receiving chamber, and thereby maintaining a lower level of the water in the receiving chamber than that of the water in the discharge chamber, substantially as and for the purpose set forth. 5th. In an apparatus for condensing smoke, gas or the like, the combination with a tank, of a drum comprising therein, a cylindrical shell and having two or more scoops *d*², a dividing wall *a*⁵ in said tank, extending from the bottom of said apparatus, having a semi-circular bearing portion in said wall, spirally arranged channels within said shell extending longitudinally through said drum, and forming within said shell a cylindrical space between the discharging end and the ends of said channels, substantially as and for the purposes set forth. 6th. In an apparatus for condensing smoke, gases or the like, in combination, a tank having a dividing wall or partition extending from the bottom of said apparatus, and a conveyor drum rotatively arranged in said tank, said dividing wall being made to embrace the lower sides of said drum, to form a receiving chamber on the one side and a discharge chamber on the other side of said wall, said conveyor drum being adapted to receive water from the receiving chamber and discharging it into the discharge chamber when in operation, and thereby maintaining a lower level of the water in the receiving chamber than that of the water in the discharge chamber, and a support *g* in said tank, substantially as and for the purposes set forth. 7th. In an apparatus for condensing smoke, gases or the like, in combination, a tank having a dividing wall or partition having a semi-circular bearing portion made to embrace the sides of said drum to form a receiving chamber on one side and a discharge chamber on the other side of said wall, a rubber or other like packing ring *c* on said drum fitting into the bearing portion of said dividing wall, said conveyor drum being adapted to receive water from the receiving chamber and discharging it into the discharge chamber when in operation, and thereby maintaining a lower level of the water in the receiving chamber than that of the water in the discharge chamber, a support *g* in said tank and a rubber or other flexible band *e*³ on said drum, adapted to rotate on a bearing-portion in said support *g*, all substantially as and for the purposes set forth.

No. 51,806. Car Coupler. (Attelage de chars.)

The Moomaw Car Coupler Company, assignee of Henry E. Moomaw, both of Salem, Virginia, U.S.A., 28th March, 1896; 6 years. (Filed 2nd March, 1896.)

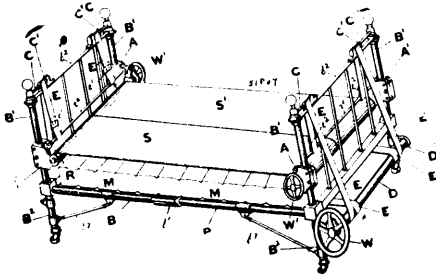
Claim.—1st. A car-coupling consisting of a draw-head formed with the square shoulder 6, a coupling-jaw pivoted therein and capable of

a slight lateral movement in addition to its swinging movement, a projection formed on said coupling-jaw, said projection entering a groove formed in the draw-head and abutting against shoulders formed by the walls of the groove, a locking-block formed with the ver-



tical end 5, a pivot pin therefor, said pin being rigidly secured to the locking-block and loosely mounted in the draw-head whereby the locking-block and its pivot pin will have a slight bodily movement in addition to its swinging motion, and means for oscillating the locking-block, substantially as described and for the purpose set forth. 2nd. A car-coupling consisting of a draw-head formed with the shoulder 6, a coupling-jaw pivoted therein, a locking-block formed with the square end 5, a pivot pin therefor, one end of which extends outside of the draw-head, the locking-block being rigidly mounted on the pivot pin, said pin being loosely mounted in the draw-head, whereby the block and pin of the block will have a lateral movement, and the end 5 will be brought against the shoulder 6, and devices carried by the projecting end of the pivot pin for oscillating the locking-block, substantially as described and for the purpose set forth. 3rd. A car-coupling consisting of a draw-head, a coupling-jaw pivoted therein and capable of a slight lateral movement on its pivotal pin, a projection 2 formed on the coupling-jaw and entering a groove 3 in the draw-head, and abutting against shoulders formed by the walls of said groove, a locking-block pivoted in the draw-head and means for oscillating said block substantially as described and for the purpose set forth. 4th. A car-coupling consisting of a draw-head provided with the grooves 12, 13 and 14 and shoulder 32, a coupling-jaw and a locking-block pivoted in said draw-head, vertical projections formed on said locking-block and working in the grooves 12 and adapted to bear on shoulder 32, and to pass through grooves 13 and 14 when desired, substantially as described. 5th. In a car-coupling, a draw-head of the form described provided with a groove 12 and with a groove or channel connecting said groove with the front of the draw-head, a locking-block pivoted in the draw-head and provided with a projection working in the groove 12 and in its normal position abutting against the wall which forms the forward end thereof, and adapted to pass through the groove or channel which connects the groove 12 with the front of the draw-head, and a coupling-jaw, and means for oscillating the locking-block, substantially as described. 6th. A car-coupling consisting of a draw-head, of the form described provided with the groove 12, and shoulder 6, a coupling-jaw and a locking-block pivoted in said draw head, the locking-block being formed with the shoulders 5-5¹ and projections 11 and extensions 22-22¹ a spring working between the extensions 22-22¹ and the shoulder 31 on the draw-head and means for oscillating the locking-block, substantially as described. 7th. A car-coupling consisting of a draw-head, a pivoted coupling-jaw, a pivoted locking-block, the pivot of said block extending above the draw-head, an angle lever secured on the upper end of said pivot, and suitable operating devices connected to said angle lever, for oscillating the locking-block, substantially as described. 8th. A car coupling consisting of a drawhead of the form described provided with the groove 12, and shoulder 6, a coupling-jaw and a locking-block pivoted in said draw-head, the coupling-jaw being formed with the square face 4¹, the locking-block being formed with the shoulders 5, 5¹, and projections 11, said block being capable of a slight lateral movement, means for normally holding the locking-block in its forward position, and means for oscillating the locking-block, substantially as described and for the purpose set forth. 9th. In a car-coupling, the combination of a draw-head, a coupling-jaw pivoted therein, a locking-block pivoted in the mouth of the draw-head, the pivot of said block being tapered downwardly where it passes through the locking-block, said block being formed with a correspondingly tapered hole, a vertical pin passing down through the draw-head and the locking-block, and having its projecting ends provided with corresponding squared portions 17, 20 and corresponding threaded parts at their extremities, an angle lever fitted over one of said squared portions, and adapted to be changed to the corresponding squared portion on the opposite end of the pin, a nut 18 screwed on the threaded portion at one end and adapted to be changed to the other end of the pin with the angle lever, a washer 30 on the pin below the draw-head, and a removable pin 28 below the washer, substantially as described and for the purposes set forth.

No. 51,807. Bedstead. (Bois de lit.)



Anna Maria Douglas, Dalkeith House, Leamington, England, 28th March, 1896; 6 years. (Filed 18th February, 1896.)

Claim.—1st. The improvements in bedsteads for invalids and in the appliances connected therewith, substantially as herein set forth and as shown upon the drawings by fig. 1 to 17 inclusive. 2nd. The divided sheet S, S¹, or its equivalent with a slit at or about the centre of its length as herein set forth, and the mode of operating same by bracket b¹, and tapes b², and b³. 3rd. The sliding sockets A, A¹, with the rollers for mounting and tightening the sheet substantially as set forth. 4th. The sliding sockets A, A¹, with their rollers and mechanism working in combination with the sheets S, S¹, or their equivalent, substantially as herein set forth and illustrated upon the drawings. 5th. The winding drum D, and its mechanism with the bands E, operating on the sockets A, A¹, for elevating the sheet at either or both ends, substantially as herein set forth and as illustrated. 6th. In combination with the bedstead and its mechanism, the operating table T, mounted upon the legs L, substantially as and for the purpose herein set forth and as shown upon the drawings.

*CERTIFICATES OF THE PAYMENT OF FEES FOR FURTHER TERMS HAVE BEEN ATTACHED TO
THE FOLLOWING PATENTS.*

4280. NOXON BROTHERS MANUFACTURING COMPANY, (assignee), 3rd term of No. 23,679, from the 29th March, 1896. Harvester Binder, March 4th, 1896.
4281. JONAS L. KNOLL and JACOB L. SMITH, 2nd term of No. 36,464, from the 23rd of April, 1896. Washing Machine, March 4th, 1896.
4282. GUSTAF OTTO RENNERFELT, 2nd term of No. 36,107, from the 11th of March, 1896. Method of Producing Haloid Salts and other Combinations of Metals, March 5th, 1896.
4283. FRANKLIN A. SMITH, 2nd term of No. 36,120, from the 12th of March, 1896. Button Fastener, March 12th, 1896.
4284. HEATON PENINSULAR BUTTON FASTENER COMPANY, (assignee), 3rd term of No. 23,707, from 31st of March, 1896. Button Setting Machine, March 6th, 1896.
4285. THE INTERNATIONAL NOVELTY COMPANY, (assignee), 2nd term of No. 36,092, from the 10th of March, 1896. Toy or Game, March 7th, 1896.
4286. GEORGE REYNOLDS CASE and FREDERIC M. PECK, 2nd term of No. 36,285, from the 2nd of April, 1896. Air Pump, March 10th, 1896.
4287. HARRY WILMOT SISSON, 2nd term of No. 36,108, from the 12th of March, 1896. Device for Preventing Horses from Kicking, March 12th, 1896.
4288. WILLIAM H. SPILLMAN, 2nd term of No. 36,128, from the 13th of March, 1896. Fruit Box, March 13th, 1896.
4289. HORACE HOLCOMB BARNES, JOHN STEPHEN BARNES and ARTHUR WELLINGTON BARNES, 2nd term of No. 36,138, from the 14th of March, 1896. Tack Driver, March 13th, 1896.
4290. EDWARD MERRILL STANNARD, 2nd term of No. 36,434, from the 21st of April, 1896. Locomotive Cab Seat, March 14th, 1896.
4291. JOHN BOYD DUNLOP, 2nd term of No. 36,552, from the 8th of May, 1896. Wheel Tires and Means for Securing them, March 16th, 1896.
4292. CHARLES LÉON BACHELERIE, 2nd term of No. 36,419, from the 21st of April, 1896. Apparatus for Preserving Organic Substances, March 17th, 1896.
4293. WILLIAM H. PROUTY, 2nd term of No. 36,297, from the 2nd of April, 1896. Saw-Mill Dog, March 19th, 1896.
4294. THE NEW YORK AIR BRAKE COMPANY, (assignee) 2nd term of No. 36,654, from the 20th of May, 1896. Air Pump, March 19th, 1896.
4295. LARON S. HENDRIX, (assignee), 2nd term of No. 36,251, from the 1st of April, 1896. Cover for Packing Tubs, March 20th, 1896.
4296. ALEXANDER McDUGALL, 2nd term of No. 36,522, from 2nd of May, 1896. Tow Boat, March 23rd, 1896.
4297. HIRAM HALL, JR., 2nd term of 36,248, from the 1st of April, 1896. Axe-Helve, March 23rd, 1896.
4298. THE CANADIAN GENERAL ELECTRIC COMPANY, (assignee), 2nd term of No. 36,381, from the 16th April, 1896. Dynamo Electric Machinery, March, 23rd, 1896.
4299. THE CANADIAN GENERAL ELECTRIC COMPANY, (assignee), 2nd term of No. 36,382, from the 16th of April, 1896. Electric Arc Lamp, March 23rd, 1896.
4300. THE CANADIAN GENERAL ELECTRIC COMPANY, (assignee), 2nd term of No. 36,383, from the 16th of April, 1896. Journal Bearings, March 23rd, 1896.
4301. THE CANADIAN GENERAL ELECTRIC COMPANY, (assignee), 2nd term of No. 36,470, from the 24th of April, 1896. Electric Railway Train System, March 23rd, 1896.
4302. WILLIAM MATHER, 3rd term of No. 23,693, from the 30th of March, 1896. Apparatus for Preparing Textile Materials, March 26th, 1896.
4303. ELMORE STEWART, 2nd term of No. 36,632, from the 19th of May, 1896. Car Couplings, March 26th, 1896.
4304. MARC LAFFONT, 2nd term of No. 39,148, from the 14th of June, 1897. Pyrosilex for Building Purposes, March 28th, 1896.
4305. BENJAMIN B. PRENTICE, 2nd term of No. 36,273, from the 1st of April, 1896. Creamer, March 30th, 1896.
4306. THE CANADIAN COPPER COMPANY, (assignee), 2nd term of No. 36,295, from the 2nd of April, 1896. Method of Treating Molten Products of Furnaces, March 30th, 1896.
4307. THE THOMAS NUT LOCK COMPANY, (assignee), 2nd term of 36,300, from the 2nd of April, 1896. Nut Lock, March 30th, 1896.
4308. PETER BARCLAY, 2nd term of No. 36,298, from the 2nd of April, 1896. Water Gauge, March 30th, 1896.
4309. WILLIAM JOSEPH COPP, 3rd term of No. 23,692, from the 29th of March, 1896. Fire Place Grate, March 30th, 1896.
4310. WILLIAM JOSEPH COPP, 3rd term of No. 23,746, from the 5th of April, 1896. Clip, March 30th, 1896.
4311. WILLIAM F. SHEDD, 3rd term of 23,957, from the 30th of April, 1896. Farm Fences, March 30th, 1896.
4312. DILMAN BRUBACHER SHANTZ, 2nd term of No. 36,311, from the 3rd of April, 1896. Machine for Polishing Buttons, March 30th, 1896.
4313. DILMAN BRUBACHER SHANTZ, 2nd term of No. 36,375, from the 14th April, 1896. Method of Making Buttons, etc., March 30th, 1896.

TRADE - MARKS

Registered during the month of March, 1896, at the Department of Agriculture--
Copyright and Trade-Mark Branch.

5558. JOSEPH E. SEAGRAM, Waterloo, Ont. Whisky, 2nd March, 1896.
5559. JOHN HENRY McMECHAN, London, Ont. Soap, 2nd March, 1896.
5560. { GEO. T. SLATER & SONS, Montreal, Que. Boots, Shoes and Slippers, 3rd
5561. { March, 1896.
5562. MORISON & COMPANY, London, England. General Trade Mark, 3rd
March, 1896.
5563. PLYMOUTH CORDAGE COMPANY, North Plymouth, Mass., U.S.A.
Twine and Binders' Twine, 5th March, 1896.
5564. THE CANADIAN FIBRE CHAMOIS COMPANY, L'd., Montreal, Que.
Fabrics and more particularly Imitation Chamois Skin Interlinings
made from Paper Pulp or Fibre, 7th March, 1896.
5565. J. S. HARDING, St. John, N.B. Salve or Ointment, 7th March, 1896.
5566. J. G. SIEVERT, Halifax, N.S. Cigars, 9th March, 1896.
5567. THE GOOLD BICYCLE COMPANY, L'd., Brantford, Ont. Cycles, 10th
March, 1896.
5568. JAMES ARTHUR CAIRCROSS & LINDSAY T. LAWRENCE, London,
Ont. A Toilet Lotion, 12th March, 1896.
5569. ADAM BLACKHALL MITCHELL, Toronto, Ont. Collars and Cuffs, 12th
March, 1896.
5570. ABRAHAM ISAACS, St. John, N.B. Cigarettes, 12th March, 1896.
5571. ABRAHAM ISAACS, St. John, N.B. Cigarettes, 12th March, 1896.
5572. ABRAHAM ISAACS, St. John, N.B. Cut Tobaccos, 12th March, 1896.
5573. THE DOMINION BAG COMPANY, L'd., Montreal, Que. Jute Bags, 14th
March, 1896.
5574. McDOUGALL, BARRETT & COMPANY, Montreal, Que. Cloths, 16th
March, 1896.
5575. J. W. SUTHERLAND, Toronto, Ont., trading as THE CRYSTAL SPRING
MINERAL WATER COMPANY. Mineral and Aerated
Waters, 17th March, 1896.
5576. ROBERT WHITE, Montreal, Que. Mineral Waters and Beverages of which
such mineral waters are the basis, 20th March, 1896.
5577. { POURE, O'KELLY & CO., Paris, France. Plumes Metalliques, 20 mars
5578. { 1896.
5579. LANMAN & KEMP, New York, N.Y., U.S.A. Sarsaparilla, 20th March, 1896
5580. LANMAN & KEMP, New York, N.Y., U.S.A. Sarsaparilla, 20th March, 1896
5581. LANMAN & KEMP, New York, N.Y., U.S.A. Hair Tonic, 20th March, 1896.
5582. LANMAN & KEMP, New York, N.Y., U.S.A. Cathartic Pills, 20th March,
1896.
5583. { THE DOMINION BAG COMPANY, L'd. Montreal, Que. Jute Bags, 20th
5584. { March, 1896.
5585. L. P. LANGLOIS & CIE., Trois Rivières. Que. Cigares, 24 mars 1896.
5586. PETER POULIN, Brockville, Ont. Cigars, 25th March, 1896.
5587. S. HERZ, London, England, and Berlin and Wittenberge, Germany. Metal
Polish, 25th March, 1896.
5588. D. R. SAUNDERS, Yarmouth, N.S. Whole Wheaten Meal, 26th March, 1896.
5589. NORMAN DOWSLEY, Athens, Ont., trading as the PINE BUD MEDI-
CINE COMPANY. A medicine for the cure of Bronchitis,
Rheumatism and Catarrhal Affections, 26th March, 1896.
5590. { ERNEST JOSEPH MOSS, Foochow, Fokkien, China. Teas, 26th March,
5591. { 1896.
5592. ALONZO FRANK RICHARDSON, New York, N.Y., U.S.A. Remedies
for Pulmonary and similar diseases, 30th March, 1896.
5593. DORKEN BROTHERS & COMPANY, Montreal, Que. Skates, 30th March,
1896.

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8389. LE DROIT CIVIL CANADIEN. Résumé en Tableaux Synoptiques, d'après la méthode de A. Wilhelm. Par E. Z. Massicotte, LL.B., Avocat. C. Théoret, Montréal, Qué., 2 mars 1896.
8390. FASHIONS. (An Illustrated Monthly Journal for Canadian Women. Volume I. Number 4. Toronto, February, 1896.) D. I. Barnett, Toronto, Ont., 2nd March, 1896.
8391. A BOY'S HEART; OR, THE STORY OF LITTLE PILKINS. By Olive A. Wadsworth. Rev. James Robertson, Montreal, Que., 2nd March, 1896.
8392. JICKLING'S EXPERIENCES. A Reminiscence of Eton Life. Edited by J. R. Rev. James Robertson, Montreal, Que., 2nd March, 1896.
8393. SCAIFE'S COMPARATIVE AND SYNOPTICAL SYSTEM OF TEACHING HISTORY—NOTE BOOK. With Exact Time Scale in Margins. The Comparative Synoptical Chart Company (Ltd.), Victoria, B. C., 2nd March, 1896.
8394. THE CANADIAN MAGAZINE, MARCH, 1896. The Ontario Publishing Company (Ltd.), Toronto, Ont., 3rd March, 1896.
8395. TORONTO. (Comic Song.) Words and Music by "DALZIEL." J. D. M. MacBurnie, Montreal, Que., 4th March, 1896.
8396. THE ASSESSOR'S GUIDE. Containing those Portions of the Consolidated Assessment Act, 1892, &c., relating to the Duties of Assessors and the Assessment of Real and Personal Property in Ontario. By James Morrison Glenn, LL.B. The Municipal World Publishers, St. Thomas, Ont., 4th March, 1896.
8397. BENEDICT'S DAY INDICATOR. Charles L. Benedict, Amherst, N.S., 5th March, 1896.
8398. WANDERING CHILD COME HOME. (Sacred Song.) Words by J. W. Bengough. Music by Mary E. Blight. The Anglo-Canadian Music Publishers' Association (Ltd.), London, England, 5th March, 1896.
8399. CLEG KELLY, ARAB OF THE CITY. His Progress and Adventures. By S. R. Crockett. D. Appleton & Company, New York, N. Y., U.S.A., 6th March, 1896.
8400. WORTH'S BURLESQUE RITUAL. For Creating Amusement at Anniversaries of Secret Societies, and for Public Entertainments. By Edward Worth, Kent Bridge, Ont., 7th March, 1896.
8401. LATER AMERICAN POEMS. Edited by J. E. Wetherell, B.A. The Copp, Clark Co. (Ltd.), Toronto, Ont., 7th March, 1896.
8402. BRANTFORD CITY DIRECTORY, 1896. The Brant Publishing Company, Brantford, Ont., 9th March, 1896.
8403. LOVE SPRINGS UP WILD. Words by W. J. Morgan. Music by W. O. Forsyth. Whaley, Royce & Co., Toronto, Ont., 9th March, 1896.
8404. LA REVUE LÉGALE, C. Théoret, Montréal, Qué., 12 mars 1896.
8405. THE INTERNATIONAL DETECTIVE BUREAU SYSTEM OF LETTERS FOR THE COLLECTION OF ACCOUNTS. Leslie A. Baker, Toronto, Ont., 13th March, 1896.
8406. NOUVELLE LYRE CANADIENNE. Recueil de Chansons Canadiennes et Françaises. C. O. Beauchemin et fils, Montréal, Qué., 13 mars 1896.
8407. THE LADY OF CHATEAU BLANC. Story Published in "ATHLETIC LIFE," Toronto. (Temporary copyright.) Malcolm W. Sparrow, Toronto, Ont., 14th March, 1896.
8408. THE TRUE SPHERE OF THE BLIND. By E. B. F. Robinson, B.A. William Briggs (Book-Steward of the Methodist Book and Publishing House), Toronto, Ont., 16th March, 1896.
8409. MASSEY MAGAZINE. March, 1896. The Massey Press, Toronto, Ont., 16th March, 1896.
8410. SCAIFE'S COMPARATIVE AND SYNOPTICAL SYSTEM OF TEACHING HISTORY, APPLIED TO ALL COUNTRIES, SECOND SERIES, CANADIAN HISTORY. The Comparative Synoptical Chart Co. (Ltd.), Victoria, B.C., 17th March, 1896.

8411. CAPTAIN BAILEY'S HEIR. (A Tale of the Gold Fields of California.) By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 17th March, 1896.
8412. BONNIE PRINCE CHARLIE. (A Tale of Fontenoy and Culloden.) By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 17th March, 1896.
8413. BY ENGLAND'S AID; or, THE FREEING OF THE NETHERLANDS. By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 17th March, 1896.
8414. BY PIKE AND DYKE. (A Tale of the Rise of the Dutch Republic.) By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 17th March, 1896.
8415. THE DRAGON AND THE RAVEN; or, THE DAYS OF KING ALFRED. By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 17th March, 1896.
8416. IN FREEDOM'S CAUSE. (A Story of Wallace and Bruce.) By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 17th March, 1896.
8417. IN THE REIGN OF TERROR; or, THE ADVENTURES OF A WESTMINSTER BOY. By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 17th March, 1896.
8418. THE LION OF THE NORTH. (A Tale of the Times of Gustavus Adolphus and the Wars of Religion.) By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 17th March, 1896.
8419. UNDER DRAKE'S FLAG. (A Tale of the Spanish Main.) By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 17th March, 1896.
8420. WITH CLIVE IN INDIA; or, THE BEGINNINGS OF AN EMPIRE. By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 17th March, 1896.
8421. WITH LEE IN VIRGINIA. (A Story of the American Civil War.) By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 17th March, 1896.
8422. WITH WOLFE IN CANADA; or, THE WINNING OF A CONTINENT. By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 17th March, 1896.
8423. THE YOUNG CARTHAGINIAN. (A Story of the Times of Hannibal.) By G. A. Henty. Blackie & Son (Ltd.), Glasgow, Scotland, 17th March, 1896.
8424. YEAR BOOK AND CLERGY LIST OF THE CHURCH OF ENGLAND IN THE DOMINION OF CANADA, 1896. Joseph P. Clougher, Toronto, Ont., 18th March, 1896.
8425. THE USE OF ALUMINUM IN DENTISTRY. (L'Aluminium dans l'Art Dentaire.) Par le Dr. Edmond Casgrain. Ulric Barthe and L. Eugène Thompson, Québec, Qué., 18 mars 1896.
8426. JUST TELL THEM THAT YOU SAW ME. (Song and Chorus.) Words and Music by Paul Dresser. Whaley, Royce & Co., Toronto, Ont., 19th March, 1896.
8427. HISTORICAL RECORDS OF THE NEW BRUNSWICK REGIMENT, CANADIAN ARTILLERY. Compiled by Captain John B. M. Baxter. The New Brunswick Regiment, Canadian Artillery, St. John, N.B., 20th March, 1896.
8428. CIRCULAR DESCRIPTIVE AND ILLUSTRATIVE OF THE ADVANTAGES OF THE DESBARATS ISLANDS. L. O. Armstrong, Montreal, Que., 21st March, 1896.
8429. QUESTIONS BASED ON PUBLIC SCHOOL HISTORY OF ENGLAND AND CANADA. By Robert B. Stevenson, Baldoon, Ont., 21st March, 1896.
8430. BELL TELEPHONE COMPANY OF CANADA (LTD.), EASTERN TOWNSHIPS EXCHANGES, SUBSCRIBERS' DIRECTORY, MARCH, 1896. The Bell Telephone Company of Canada (Ltd.), Montreal, Que., 23rd March, 1896.
8431. THE ONLY GIRL I LOVE. Words and Music by Chas. R. Palmer. Whaley, Royce & Co., Toronto, Ont., 23rd March, 1896.
8432. THE MCGILL UNIVERSITY SONG BOOK. Wm. Foster Brown, Montreal, Que., 24th March, 1896.
8433. THE WISHAW SCHOTTISCHE. By J. B. Nelligan, Hamilton, Ont., 25th March, 1896.
8434. FASHIONS. An Illustrated Monthly Journal for Canadian Women. Volume I, Number 5, Toronto, March, 1896. D. I. Barnett, Toronto Ont., 25th March, 1896.

8435. LAND OF THE WAVING MAPLE LEAF. Words and Music by F. L. H. Sims, Toronto, Ont., 25th March, 1896.
8436. HONOURABLE WILFRID LAURIER. (Engraving.) John Harkins, Toronto, Ont., 26th March, 1896.
8437. VESPÉRAL ROMAIN. À l'usage de la Province Ecclésiastique de Québec. 5e Edition. J. A. Langlais et fils, Québec, Qué., 26 mars 1896.
8438. THANKS AWFULLY. (Two-Step.) By Edith Lillian Dixon. The Anglo-Canadian Music Publishers' Association (Ltd.), London, England, 27th March, 1896.
8439. L'ALMANACH DU PEUPLE ILLUSTRÉ, 1896. C. O. Beauchemin et fils, Montréal, Qué., 27 mars 1896.
8440. COURSOLES' INTERNATIONAL PATENT AGENCY. Louis J. Coursolles, Ottawa, Ont., 27th March, 1896.
8441. O SALUTARIS. (Solo pour Soprano ou Tenor avec Accompagnement d'Orgue.) Composé par Adèle LeMaitre, Toronto, Ont., 31st March, 1896.
8442. CANADA'S GLORY. Portraits of Celebrated Light Horses. (Engraving.) John Weld, London, Ont., 31st March, 1896.
8443. SIGNOR TESSEMAN'S METHOD OF THE ART OF SINGING AND VOICE PRODUCTION. Claude B. Tesseman, Toronto, Ont., 31st March, 1896.