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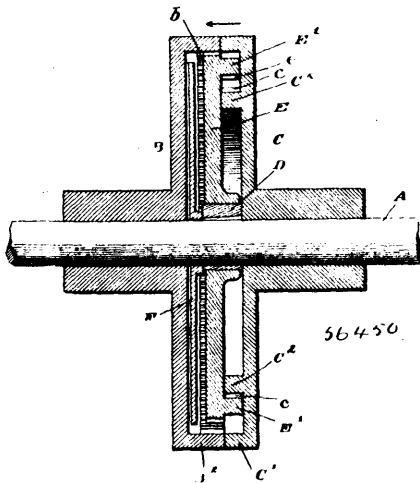
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INVENTIONS PATENTED.

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. 56,450. Power Transmitter.

(Appareil de transmission de la force.)

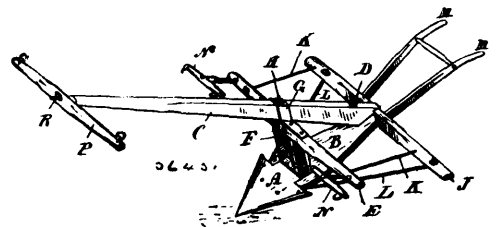


Daniel Stephen Regan, San Francisco, California, U.S.A., 2nd July, 1897; 6 years. (Filed 15th November, 1895.)

Claim.—1st. The combination, with a driving shaft and an eccentric fixed thereon and revolving therewith, of a combined external and internal gear wheel revolving loosely upon and driven by the eccentric, and the internal and external gear wheels respectively engaging said internal and external gear. 2nd. The combination with an electric motor and its driving shaft, of an eccentric fixed thereon and revolving therewith, a combined external and internal gear wheel revolving loosely upon and driven by the eccentric, and internal and external gear wheels respectively engaging said external and internal gears, substantially as described. 3rd. The com-

ination with a driving shaft and an eccentric fixed thereon and revolving therewith, of a combined external and internal gear wheel revolving loosely upon and driven by the eccentric, the internal and external gear wheels respectively engaging said external and internal gear and a balance on the shaft for counterbalancing the eccentric and the gearing supported thereon, substantially as described. 4th. The combination of a driving shaft, an eccentric fixed thereon and revolving therewith, a combined external and internal gear wheel revolving loosely upon and driven by the eccentric, an internal gear on the shaft engaging the aforesaid external gear and having a greater diameter and a greater number of teeth, and an external gear likewise on the shaft and engaging the internal gear of the combined gear wheel and having a less number of teeth than the internal gear, together with a balance on the shaft for counterbalancing the eccentric and the gearing supported on the eccentric, substantially as described.

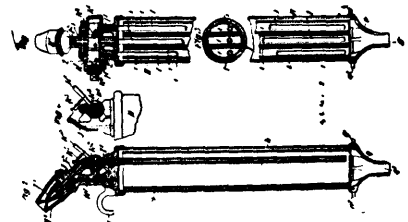
No. 56,451. Shovel Plough. (Charrue.)



Lazarus Wener, New Glasgow, Nova Scotia, 2nd July, 1897; 6 years. (Filed 13th May, 1896.)

Claim.—1st. The plough frame comprising the pole C, bolted at the rear end to the sheath, the draft bar E, connected to the pole and sheath by a bracket F, yoke G, and through bolt H, and the draft bar E, reinforced by the parallel bar J, morticed to the end of the sheath and connected to the said draft bar and sheath by rods or braces K and L, as set forth. 2nd. The draft bars E and J, connected together and to the sheath transversely, for attachment of the handles M, and to a pair of shafts, as set forth.

No. 56,452. Apparatus for Coating Surfaces with Paint or Similar Substance. (Appareil pour enduire les surfaces de peintures, etc.)



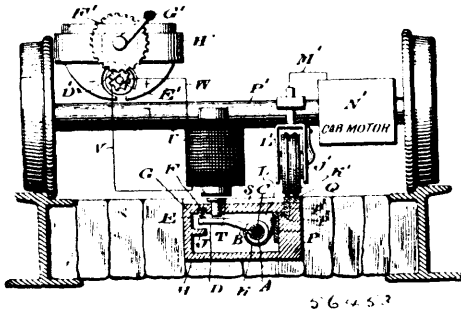
Roughsedge Wallwork, Roger street, Manchester, and Arthur Collings Wells, London, both in England, 2nd July, 1897; 6 years. (Filed 22nd September, 1896.)

Claim.—1st. In apparatus for spraying paint or similar substance, the combination with the nozzle head of a detachable holder contain-

ing the paint, a discharge pipe for leading the said paint from the holder to the paint nozzle, an air inlet for enabling compressed air to enter the holder and force the paint through the discharge tube, and a valve for controlling the exit of the paint. 2nd. In apparatus for spraying paint or similar substance, the combination with the nozzle head of a detachable cylindrical holder containing a number of paint vessels, a series of discharge tubes leading from the said paint vessels and communicating in the nozzle head with passages that meet at a common outlet terminating in the nozzle, a series of valves carried by the nozzle head and capable of being individually or simultaneously operated by the user, and an air inlet for admitting compressed air to the paint vessels, substantially as and for the purpose specified. 3rd. In apparatus for spraying paint or similar substance, the combination with the nozzle head of a detachable holder containing a number of paint vessels, a series of discharge pipes extending to nearly the bottom of the said paint vessels and communicating in the nozzle head with passages leading to a common outlet terminating in the nozzle, an air inlet at the lower end of the said holder through which the compressed air passes from an air compressor and enters the mouths of the said paint vessels by passing through an annular space surrounding the said vessels, and valves for regulating the exit of the paint substantially as described and for the purpose specified. 4th. The combination with the nozzle head and the detachable holder containing the paint vessels, of a series of independent valves each controlling one of the passages from the paint vessels to the nozzle, and of spring controlled lever handles for enabling the operator to actuate the valves separately or simultaneously substantially as described and for the purpose specified. 5th. The combination with the nozzle head and the detachable holder containing the series of paint vessels, of a series of independent taper plug valves mounted in a taper recess in the nozzle head and each having a transverse hole, of handles carried by the said plug valves for bringing the said holes in position to open the paint exit passages to the nozzle, of springs for normally keeping the plug valves in a closed position, and of a detachable plug for retaining the plug valves in position and for permitting of their removal when desired, all substantially as described.

No. 56,453. Electric Railway.

(*Chemin de fer électrique.*)



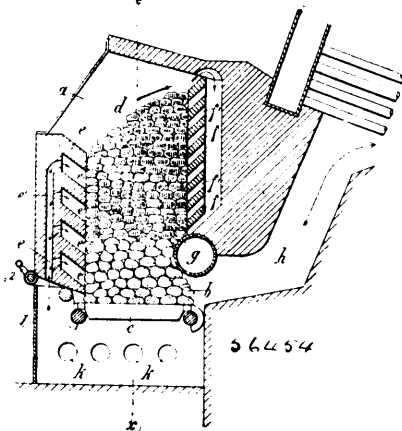
Harry C. Reagan, jr., Philadelphia, Pennsylvania, U.S.A., 2nd July, 1897; 6 years. (Filed 25th November, 1896.)

Claim.—1st. In an electric railway, a feed wire, a conduit, a conductor supported therein, a contact movably mounted on said feed wire, said contact having a suitable body portion, a sleeve surrounding the feed wire and engaged by said body portion, said sleeve having a resilient arm extending therefrom, and adapted to complete the circuit between said feed wire and conductor at proper intervals. 2nd. In an electric railway, a feed wire, an oscillatory contact mounted on the latter and provided with a magnetic arm or armature, and a resilient non-magnetic arm also attached to said contact. 3rd. In an electric railway, a conduit of non-conducting material, a feed wire suitably supported therein, a conductor passing through the top of said conduit, an oscillatory contact mounted on said feed wire, and having an arm or armature of magnetic material, a resilient non-magnetic arm also mounted on said contact, and a spring for actuating said armature so as to break the contact between said resilient arm and the conductor. 4th. In an electric railway, a feed wire, an oscillatory contact mounted thereupon, and provided with a magnetic arm or armature, a resilient non-magnetic arm also attached to the said contact, a conductor located in the path of said resilient arm, means for causing a contact between said resilient arm and conductor, and means for conveying the electricity from said feed wire to the car motor. 5th. In an electric railway, a collector wheel composed of a plurality of rings, a hub on which said rings are mounted, and springs intermediate said hub and rings. 6th. In an electric railway, a collector wheel composed of a plurality of rings, a hub on which said rings are mounted, sockets in the latter and said rings, and yielding devices seated in said sockets and adapted to form yielding spokes. 7th. In an electric railway, a closed conduit of non-conducting material, a conductor supported therein, a feed wire located in said conduit, oscillatory contacts mounted on said feed wire, and having washers of insulating material therebetween, one arm of said con-

tacts being of magnetic material, and the other arm being of resilient and non-magnetic material, in combination with a collector wheel, and connections therefrom to a car motor. 8th. In an electric railway, a conduit of non-conducting material, a feed wire suitably supported therein, an oscillatory contact mounted thereupon, and having a resilient arm, an angular-shaped conductor located in said conduit, and having depending portions adapted to complete the circuit when the contact is made, and a stop for said contacts. 9th. In an electric railway, a car, a car motor, a feed wire, a conduit therefor, an oscillatory contact thereon having a resilient arm, a conductor wheel, and a magnet mounted on said car, connections from said conductor wheel to said car motor, an auxiliary charging motor, and connections therefrom to said magnet. 10th. In an electric railway, a closed conduit, a feed wire supported therein, oscillatory contacts mounted on said feed wire, and having a resilient arm, a magnet adapted to be supported on the car, a conductor, means for making a circuit between said conductor and the car motor, a charging motor, a battery, and connections intermediate said battery, motor and magnet. 11th. In an electric railway, a magnet, a non-conducting conduit, a feed wire supported therein, an oscillatory contact mounted thereupon, and having an armature and a resilient arm attached thereto, an angular shaped conductor located in said conduit, means for holding said conductor in position, and a pin of magnetic material located in said conduit for the purpose of producing a short magnetic path between said magnet and armature, in combination with means for oscillating said contact. 12th. In an electric railway, a car, a magnet carried thereby, a conduit, a conductor located in the side of said conduit, a feed wire supported therein, a contact device mounted thereon and provided with a resilient arm and an armature, and pins of suitable magnetic material projecting into the interior of said conduit in proximity to said armature, for the purpose of producing a short magnetic path between said magnet and armature. 13th. In an electric railway, a car, a car motor, a conduit, a conductor located partially within and partially without the same, a feed wire supported within said conduit, an oscillatory contact mounted upon said feed wire, and provided with a resilient arm, a magnet supported on said car, means for conveying the electricity from said conductor to said car motor, an auxiliary motor and connections from the latter to said magnet, in combination with pins of suitable magnetic material located in proximity to said contact, for the purpose of producing a short magnetic path between said contact and the exterior of said conduit. 14th. In an electric railway, a collector wheel composed of a plurality of rings separated from each other, and a hub therefor, each ring having spokes composed of springs common to said rings and hubs. 15th. In an electric railway, a car, a car motor, a conduit, a feed wire located within said conduit, an oscillatory contact mounted on said feed wire, and having a resilient arm, means for conducting electricity from said conductor to the car motor, a magnet carried by said car, an auxiliary charging motor and connections from the latter to said magnet whereby the latter can be energized when desired. 16th. In an electric railway, a car, a magnet carried thereby, a car motor, a conduit, a conductor located in a side thereof, means for conveying electricity from said conductor to said car motor, a feed wire supported in said conduit, an oscillatory contact device mounted on said feed wire and provided with a magnetic armature and a resilient non-magnetic arm, pins of suitable magnetic material located in proximity to said armature for the purpose of producing a short magnetic path between said magnet and armature, a magnet carried by the car, means for conveying electricity from the feed wire to the car motor, an auxiliary charging motor and connections therefrom to said magnet. 17th. In an electric railway, a conduit, a conductor located in a side of said conduit, a feed wire supported in said conduit, an oscillatory contact device mounted on said feed wire and provided with a magnetic armature and a resilient non-magnetic arm, pins of suitable magnetic material located in proximity to said armature for the purpose of producing a short magnetic path between said magnet and armature, a magnet carried by the car, means for conveying electricity from the feed wire to the car motor, an auxiliary charging motor and connections therefrom to said magnet. 18th. In an electric railway, a car, a car motor, a feed wire, a conduit therefor, an oscillatory contact mounted on said wire and having a resilient arm, a conductor located adjacent to said conduit, means for conveying electricity from said conductor to the car motor, a magnet carried by said car, an auxiliary charging motor and connections from the latter to said magnet. 19th. In an electric railway, a conduit, a feed wire supported therein, an oscillatory contact mounted on said feed wire and having a resilient arm, a conductor located in proximity to said conduit, against which said arm is adapted to contact, and means for conveying electricity from said conductor to a car motor, in combination with a magnet, a battery, an auxiliary charging motor, and conductors common to the latter and to said battery and magnet. 20th. In an underground railway, a conduit containing a plurality of contacting devices, suitable protecting or paving material adapted to cover the top of said conduit, a series of independent magnetic paths separated from each other and embedded in said material and extending from the surface thereof towards but not into the interior of said conduit and over said contacting devices, and said magnetic paths being out of electrical connection with the interior of the conduit. 21st. In an underground railway, a closed non-conducting conduit and a series of blocks above the same, and embedded in the top of

the paving material covering said conduit, in combination with a series of plates or strips suitably attached to the under side of the top of the conduit, and means for conducting electricity from the feed wire within said conduit to the exterior of the latter. 22nd. In an electric railway, a three-sided conduit adapted to rest upon and be embedded in a paving material, a series of blocks embedded in the top of said conduit, a bolt projecting through a side of said conduit, and having a carbon button in its head and an angle iron secured to a side of said conduit, said bolt serving as a conductor of electricity and to hold said angle iron in position. 23rd. In an electric railway, a conduit, a feed wire supported therein, oscillatory contact devices mounted on said feed wire, means for conducting electricity from said devices to a car motor, and paving material covering the top of said conduit, in combination with a series of independent magnetic paths separated from each other and embedded in said paving material and extending from the surface thereof towards but not into the interior of said conduit, said paths being located over said contacting devices and being out of electrical connection with the interior of the conduit. 24th. In an electric railway, a conduit, a feed wire supported therein, oscillatory contact devices mounted on said feed wire, paving material covering the top of said conduit, and a series of independent magnetic paths embedded in said paving material, and extending from the surface thereof towards but not into the interior of said conduit, said paths being located over said contact devices and out of electrical connection with the interior of the conduit, in combination with a car motor, and supplemental poles provided with soft iron shoes inserted in the poles of said car motor, said shoes being adapted to travel over said magnetic paths. 25th. In an electric railway, a feed wire, a conduit therefor, an oscillatory contact mounted on said feed wire, means for conducting electricity from said contact to the car motor, a series of supplemental poles inserted in the poles of the car motor, shoes of soft iron attached to said poles, and devices for producing a magnetic path to the interior of the conduit inserted in the path of said poles. 26th. In an electric railway, a conduit, a casing therefor, a series of independent magnetic paths supported above said conduit, and a magnet having soft iron shoes attached to each pole thereof, said shoes extending over one or more magnetic paths. 27th. In an electric railway, a collector wheel consisting of an inner glass or non-conductor shell, a coating of silver thereupon, a metallic shell surrounding the whole, coils of high resistance embedded in asbestos or similar material, contained within said non-conducting shell, and means for conducting electricity to and from said wheel. 28th. In an electric railway, a closed conduit, a non-conducting material forming a protection surrounding said conduit, and magnetic pins or paths of any suitable material projecting through said non-conducting material to the interior of said conduit, in proximity to armatures of contacting devices located in said conduit, in combination with means for magnetically operating said devices. 29th. In an electric railway, a non-conducting conduit, a feed wire therein, an oscillating contact mounted on said feed wire, magnetic pins or paths of any suitable material projecting into said conduit, and a magnet supported on a car, said magnet having poles covering a plurality of said magnetic paths.

No. 56,454. Slow Combustion Grate Furnace or Stove.
(Grille fournaise poêle.)

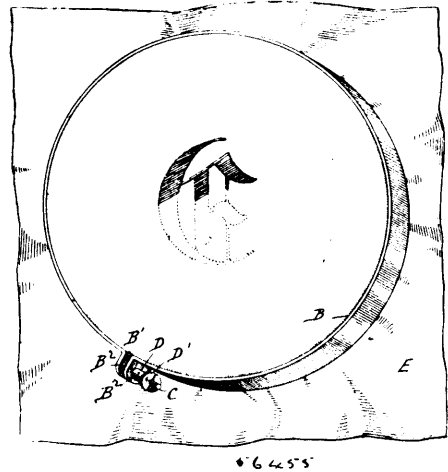


Augustus Pampus, Keil, Prussia, Germany, 2nd July, 1897; 6 years. (Filed 28th April, 1897.)

Claim.—1st. A furnace for slow combustion apparatus in which air is introduced to the fuel *b, d*, by surrounding channels *c, f*, at its sides for the purpose of permeating the entire column of the fuel and thereby to obtain a stream of gas at the exit tube *h* thoroughly saturated with air. 2nd. A furnace for slow combustion apparatus as set forth in claim 1, in which the air is led to the fuel through side channels characterized by the fact that this air is forced under all circumstances to pass through the glowing layer of fuel *b* lying

direct on the grate *e* by means of a fire-proof corner *g* projecting into the fuel for the purpose of thoroughly mixing the air with the gases of combustion before the escape of the air and thus obtaining as complete a combustion as possible, constructed and arranged substantially as hereinbefore described. 3rd. A modification of the slow combustion apparatus set forth in claim 2 in which a water tube is used for the fire-proof corner *g* projecting into the fuel, constructed and arranged substantially as hereinbefore described. 4th. A slow combustion apparatus as set forth in claim 2, characterized by an overhanging wall *w* provided with set-offs or steps *w'* against which the fuel lies in such a manner that a passage for the air is obtained between the fuel and the water, constructed and arranged substantially as hereinbefore described. 5th. A modification of the slow combustion apparatus set forth in claim 2 in which on the one side a smooth over-hanging wall *w* is used so that the air is only admitted from the side through the channels *f* of the wall *f* to the fuel, constructed and arranged substantially as hereinbefore described.

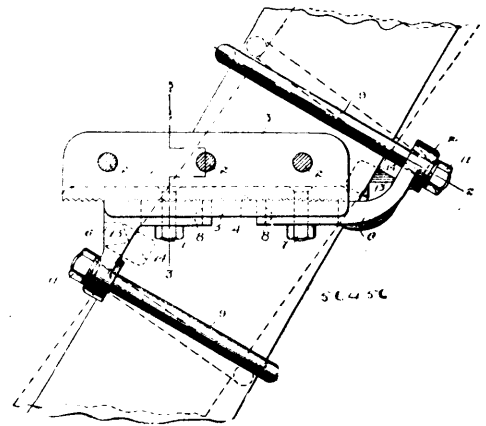
No. 56,455. Embroidery Hoop.
(Cerceau pour broderies.)



Edwin William Vaughan, Worcester, Mass., U.S.A., 2nd July, 1897; 6 years. (Filed 28th May, 1897.)

Claim.—The within described embroidery hoop comprising two clamping bands between which the fabric is held, one of said bands having a fixed diameter and the other of said bands consisting of an elastic band cut apart at one side and provided with ears carrying an adjusting screw and tightening nut by which the diameter of said band is varied against its tension, as and for the purpose set forth.

No. 56,456. Adjustable Tread Support for Stairs.
(Support pour marches d'escaliers.)

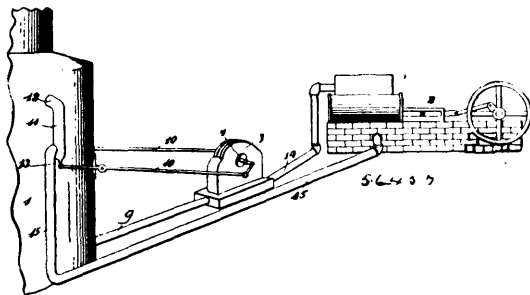


Charles Barker Emery, Boston, Mass., U.S.A., 2nd July, 1897; 6 years. (Filed 28th May, 1897.)

Claim. 1st. A tread support for stairways, having clamp-brackets adjustably secured thereto, substantially as described for the purpose specified. 2nd. A tread support for stairways, having clamp-brackets secured thereto, provided with clamp-bolts whereby

said tread-support may be clamped to the carriage of said stairway, substantially as described for the purpose specified. 3rd. A tread support for stairways, having clamp-brackets adjustably secured thereto, provided with clamp-bolts, whereby said tread-support may be clamped to the carriage of said stairway, substantially as described for the purpose specified. 4th. The tread support 4, clamp-brackets 6, 6, adjustably secured thereto, having bearing lugs 13, thereon, and provided with conoidal openings 12, to receive clamp-bolts 9, whereby said tread-support may be secured to the carriage of a stairway, substantially as described for the purpose specified. 5th. The tread support 4, clamp-brackets 6, 6, secured thereto, having ears 14, 14, thereon and provided with holes 12, to receive clamp-bolts 9, 9, whereby said tread-support may be secured to the carriage of a stairway, substantially as described for the purpose specified.

No. 56,457. Steam Boiler. (Chaudière à vapeur.)



Edward J. Cusack, Havelock, N.B., Canada, 2nd July, 1897; 6 years. (Filed 28th May, 1897.)

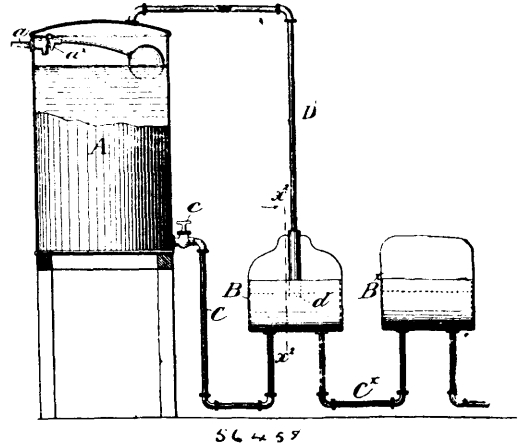
Claim.—1st. In a device of the class described, the combination, with a boiler and an air engine, of pipe connections between the same, and means interposed in said pipe connections and operated by the escape of rarified air from the boiler for supplying fresh air thereto for rarification, substantially as described. 2nd. The combination of a boiler and compressed air engine, means whereby the air normally contained in the boiler may be supplied in compressed condition to the said engine, and an exhaust connection between the engine and boiler whereby the air may be re-used, substantially as described. 3rd. The combination of a boiler and compressed air engine, a shaft provided with means whereby the air from the boiler will operate it, air pumps connected with and operated by said shafts, and a connection between said pumps and engine, whereby the air compressed thereby is supplied to said engine, substantially as described. 4th. The combination of a boiler, a compressed air engine, a fan casing in communication with the boiler, a shaft extending from said casing and provided with fans and propeller blades, pumps adapted to compress the air received from the boiler, and a connection between the said fan casing and the engine, whereby the air compressed by the pumps is supplied to the said engine, substantially as described. 5th. The combination of a boiler and compressed air engine, a fan casing having a pipe connection with said boiler above the water line thereof, a compressed air supply pipe connected with said engine, a shaft extending through said casing and provided with fans and propeller blades, pumps connected with and operated by said shaft to compress the air from the boiler, whereby the compressed air is supplied to the engine, and an exhaust pipe connection between the said engine and boiler, whereby the air used by the engine is carried back to the boiler and re-used and re-compressed, substantially as described.

No. 56,458. Automatic Watering Apparatus for Stock, etc. (Appareil pour abreuver le bétail, &c.)

John Kirkwood, Lennox, Mass, U.S.A., 2nd July, 1897; 6 years. (Filed 28th May, 1897.)

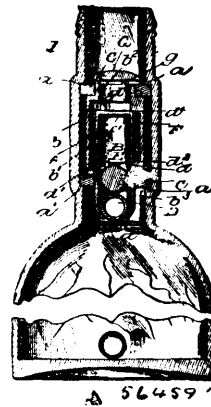
Claim.—1st. An automatic watering apparatus for animals, comprising as its essentials an hermetically closed supply tank, an open trough adapted to be supplied by gravity from said tank, and an air-pipe extending from the upper part of said supply tank, above the high water-level therein, to the trough, and the open end of said pipe at the trough so situated as to be sealed by the water in the trough when the water rises to the predetermined level therein, substantially as set forth. 2nd. An automatic watering apparatus for animals, comprising an elevated, hermetically closed supply tank A, a trough B, to be supplied from said tank, a cock-controlled pipe C, connecting the tank with said trough, and an air-pipe D, con-

necting the top of the supply tank with the trough, the open, lower end *d* of the said air-pipe being situated at about the predeter-



mined water-level in the trough, whereby the rise of water in the trough seals the end *d* of the pipe, substantially as set forth.

No. 56,459. Bottle Stopper. (Bouchon de bouteille.)

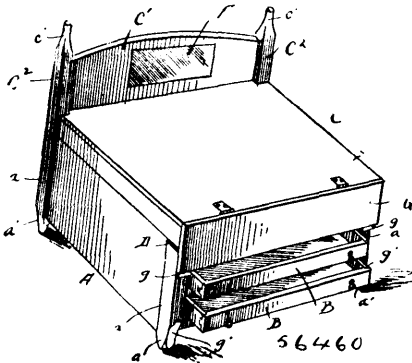


Frederick Ludwig Siegel, Atlanta, Georgia, U.S.A., 2nd July, 1897; 6 years. (Filed 29th May, 1897.)

Claim.—1st. A bottle-stopper comprising a casing formed in two parts, each part having a cylindrical portion and a bulged portion formed therewith, rings on said cylindrical portions, a ball-valve in said lower cylindrical portion, and stops for limiting the movement thereof, as set forth. 2nd. A bottle having a stopper in its neck, said stopper comprising a casing, a valve in said casing, and a solid ball in said bottle designed to unseat said valve, as set forth. 3rd. A bottle having a valve in its neck, a cylindrical casing in said neck having a seat for said valve, and a receptacle located within and concentric to said casing, said receptacle having a bore of uniform diameter open at one end in line with said valve-seat, substantially as set forth. 4th. A bottle having a valve in its neck, a casing located in said neck having a contracted portion forming a valve-seat and interior shouldered ribs, a receptacle within said casing held by said ribs, said receptacle having an open end in line with said valve-seat, and a weight for said valve, said receptacle being designed to receive and guide said valve and weight, substantially as set forth. 5th. A bottle having a hollow spherical valve in its neck, a casing for said valve having a central cylindrical portion and reduced ends, one of which is flanged to form a seat for said valve, a weight designed to hold said valve against its seat, and a hollow cylindrical receptacle open at one end in line with said valve seat, said receptacle being concentrically located within said casing and designed to receive said weight and valve, as set forth, a uniform space between said receptacle and casing forming a passage-way for the liquids when the bottle is inverted, as stated. 6th. The herein-described improved bottle having its neck provided with interior shouldered ribs, a two-part casing in said neck having reduced end-portions and interior shouldered ribs, one of said end-portions having a valve-seat, rings surrounding said end-portions and engaging said shouldered ribs, an inverted open-ended receptacle held in said casing by said shouldered ribs, a hollow spherical float valve, and a spherical weight therefor, said receptacle being in line with said valve-seat

and designed to receive said weight and valve, substantially as set forth. 7th. A bottle-stopper comprising a casing having contracted end-ports, a valve and a weight in said casing, rings on said contracted portions, and a hood extending over the exposed end of said casing and protecting the valve and weight from surreptitious control, as set forth.

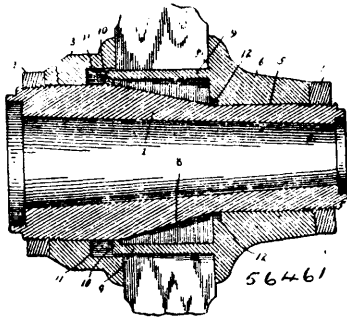
No. 56,460. Folding Bed. (Lit-pliant.)



Manuel Leandrew Collins, Hendrickson, Missouri, U.S.A., 2nd July, 1897; 6 years. (Filed 29th May, 1897.)

Claim.—In a folding bed of the character described, a deep box having bed slats therein, a folding head board upon the rear wall thereof, extended legs at the four corners thereof, and sliding drawers therein, the hinged shallow compartment containing a series of bed slats having posts thereon, and a hinged cover for the front of the bureau, said cover being adapted to engage with the front of said deep box to prevent access to said drawers when the bed is open, substantially as shown and described.

No. 56,461. Wheel Hub. (Moyeu de roue.)



Guy Shermaif, Lawrence, Kansas, U.S.A., 2nd July, 1897; 6 years. (Filed 29th May, 1897.)

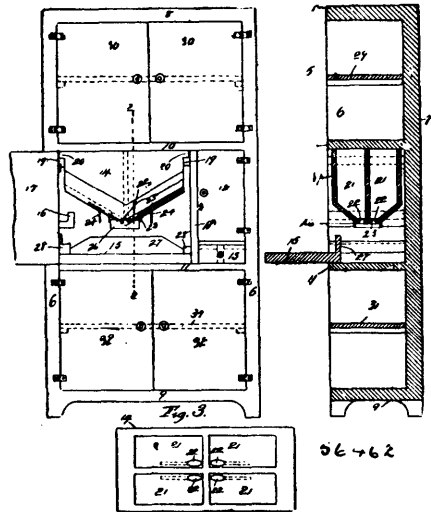
Claim.—An axle box threaded at each end and having intermediate its ends a conocylindrical seat and also provided at each side of said seat with cylindrical portions of different diameters, in combination with a slide collar surrounding the smaller cylindrical portion of the box at one side of the seat, and provided with longitudinally-extending webs the extremities of which bear upon the larger cylindrical portion of the box, an opposing slide collar surrounding the larger cylindrical portion of the box and embracing the extremities of the webs, and nuts on the ends of the axle box, substantially as and for the purpose described.

No. 56,462. Cupboard. (Armoire.)

Francis Charles Geiger, Parkersburg, West Virginia, U.S.A., 2nd July, 1897; 6 years. (Filed 31st May, 1897.)

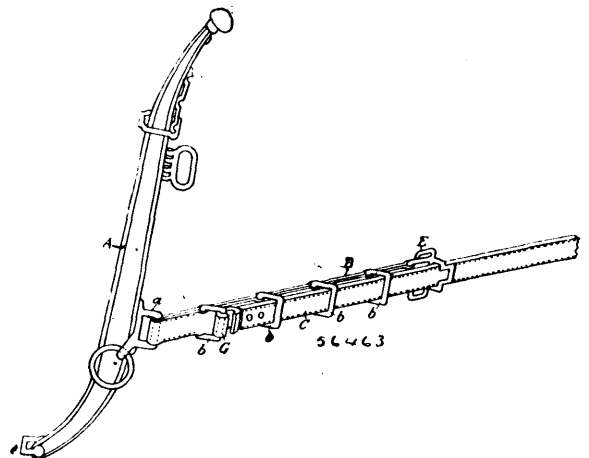
Claim.—1st. A cupboard which is divided into separate compartments by transverse partition plates or shelves, one of said compartments being provided with a removable flour bin having separate compartments formed therein, the bottoms of which converge inwardly and downwardly, each of said compartments being also provided with a bottom opening at the central portion of the bin, and said bottom openings being provided with sliding valves or cut-offs, substantially as shown and described. 2nd. A cupboard, which is divided into separate compartments by transverse partition plates or shelves, one of said compartments being provided with a removable flour bin, having separate compartments formed therein, the bottoms of which converge inwardly and downwardly, each of said compartments being also provided with a bottom opening at the central portion of the bin, and said bottom openings being provided with sliding valves or cut-offs, said compartment being also provided immediately below the flour bin with a sliding bread board and with

hinged doors, substantially as shown and described. 3rd. A cupboard which is divided into separate compartments by transverse



partition plates or shelves, one of said compartments being provided with a removable flour bin, having separate compartments formed therein, the bottoms of which converge inwardly and downwardly, each of said compartments being also provided with a bottom opening at the central portion of the bin, and said bottom openings being provided with sliding valves or cut-offs, said compartment being also provided immediately below the flour bin with a sliding bread board and with hinged doors, and the cupboard above and below the compartment in which the flour bin is placed, being also divided by transverse and removable partition plates or shelves and with hinged doors, substantially as shown and described. 4th. A cupboard, which is divided into separate compartments by transverse partition plates or shelves, one of said compartments being provided with a removable flour bin, having separate compartments formed therein, each of said compartments being also provided with bottom opening at the central portion of the bin, and said bottom openings being provided with sliding valves or cut-offs, said compartment being also provided immediately below the flour bin with a sliding bread board and with hinged doors, and the cupboard above and below the compartment in which the flour bin is placed, being also divided by transverse and removable partition plates or shelves and with hinged doors, and the side of the cupboard adjacent to the compartment in which the flour bin is placed being also divided and provided with a hinged door, and sliding drawer, substantially as shown and described.

No. 56,463. Harness. (Harnais.)

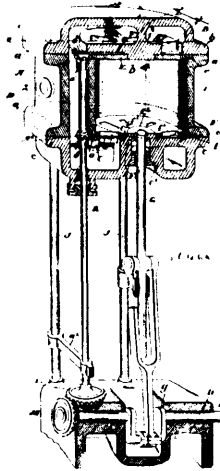


William Frederick Dale, Bowmanville, Ontario, Canada, 2nd July, 1897; 6 years. (Filed 31st May, 1897.)

Claim.—1st. A hame-tug provided with free loops or links adapted to engage with the hooked end of the trace, substantially as de-

scribed. 2nd. In combination with a trace having a hooked end, free links secured to a chain encased within the hame-tug and adapted to engage with the hooked end of the trace, substantially as described. 3rd. A hame-tug, provided at the end farthest from the hame, with a suitable tongueless buckle, having within the hame-tug a chain provided with free links or loops which protrude through the hame-tug and are adapted to engage with the hooked end of the trace, substantially as described. 4th. A hame-tug B with its free loops *b* and buckle E in combination with the hook C upon the trace end, substantially as described.

No. 56,464. Steam Engine. (Machine à vapeur.)



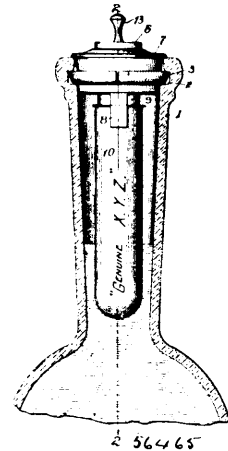
Johan Burchardt Opsahl, Toronto, Ontario, Canada, 2nd July, 1897; 6 years. (Filed 1st June, 1897.)

Claim.—1st. In an automatic cut-off high speed engine, in combination the cylinder, the piston and piston rods suitably connected to the shaft, the heads of the cylinder provided with radial steam ports, the inlet and exhaust chambers dividing the steam ports into two sections at each end, and the rotary valves provided with radial ports suitably driven from the main shaft, as and for the purpose specified. 2nd. In an automatic cut-off high speed engine, in combination the cylinder, the piston and piston rods suitably connected to the shaft, the heads of the cylinder provided with radial steam ports, the inlet and exhaust chambers dividing the steam ports into two sections at each end, the rotary valves provided with radial ports suitably driven from the main shaft and the segmental cut-off valves provided with suitable radial ports and means for controlling the same, as and for the purpose specified. 3rd. In an automatic cut-off high speed engine, in combination the cylinder, the piston and piston rods suitably connected to the shaft, the heads of the cylinder provided with radial steam ports, the inlet and exhaust chambers dividing the steam ports into two sections at each end, the rotary valve provided with radial ports, the toothed rims formed on the edges of the rotary valves, the pinions meshing therewith, the spindle on which such pistons are secured, and driving means from such spindle operated from the main shaft, as and for the purpose specified. 4th. In an automatic cut-off high speed engine, in combination the cylinder, the piston and piston rods suitably connected to the shaft, the heads of the cylinder provided with radial ports, the inlet and exhaust chambers dividing the steam ports into two sections at each end, and the rotary radial valves located to the interior of the heads, the equidistant radial ports in same and for rotating such valve, as and for the purpose specified. 5th. In an automatic cut-off high speed engine, in combination with the cylinder, the piston and piston rods suitably connected to the shaft, the heads of the cylinder provided with radial steam ports, the inlet and exhaust chambers dividing the steam ports into two sections at each end, the rotary valves located to the interior of the heads, the equidistant rotary ports and means for rotating such valves, and the cut-off slide valves provided with radial ports, slotted arm and link and rod connection extending through the wall of the inlet chamber and means for controlling same, as and for the purpose specified. 6th. In an automatic cut-off high speed engine, in combination the cylinder, the piston and piston rods suitably connected to the shaft, the heads of the cylinder provided with radial steam ports, the inlet and exhaust chambers provided with the angular division wall dividing the steam ports into a minor number of inlet ports and a major number of outlet ports and the rotary valves located to the interior of the heads and means for rotating such valves, as and for the purpose specified. 7th. In an automatic cut-off high speed engine, in combination the cylinder, the piston and piston rods suitably connected to the shaft, the heads of the cylinder provided with radial steam ports, arranged in two sets, the ports of each set being equidistant apart and the ends of the sets being unequally separated circum-

ferentially, the inlet and exhaust chambers provided with the angular division wall dividing the steam ports into a minor number of inlet ports and a major number of outlet ports, and the rotary valves located at the interior of the heads and means for rotating such valves, as and for the purpose specified.

No. 56,465. Unrefillable Bottle.

(Appareil pour empêcher le remplissage des bouteilles.)



John Schumacher, Chicago, Illinois, U.S.A., 2nd July, 1897; 6 years. (Filed 1st June, 1897.)

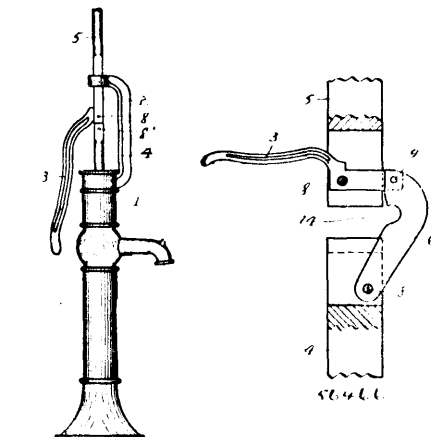
Claim.—1st. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of time mechanism arranged to operate a definite length of time, means upon which the time mechanism is adapted to operate, and means for preventing the resetting of the time mechanism, substantially as and for the purpose described. 2nd. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of time mechanism arranged to operate a definite length of time, means upon which the time mechanism is adapted to operate, and means for preventing the operator from interfering with the operation of the time mechanism, substantially as and for the purpose described. 3rd. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of time mechanism arranged to operate a definite length of time, and means upon which the time mechanism is adapted to operate, the time mechanism being provided with means for arresting its own operation before it has operated the definite length of time aforesaid, substantially as and for the purpose described. 4th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of time mechanism arranged to operate a definite length of time, means upon which the time mechanism is adapted to operate, the time mechanism being provided with means for arresting its own operation before it has operated the definite length of time aforesaid, and means for preventing the operator from interfering with the operation of the time mechanism, substantially as and for the purpose described. 5th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of time mechanism arranged to operate a definite length of time, means upon which the time mechanism is adapted to operate, the time mechanism being provided with means for arresting its own operation before it has operated the definite length of time aforesaid, and means for preventing the resetting of the time mechanism, substantially as and for the purpose described. 6th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of a spring, a device upon which it is adapted to operate, time mechanism adapted to operate a definite length of time for holding the spring under tension, and means for preventing the resetting of the time mechanism, substantially as and for the purpose described. 7th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of a spring, a device upon which it is adapted to operate, time mechanism adapted to operate a definite length of time for holding the spring under tension, and means for preventing the operator from interfering with the operation of the time mechanism, substantially as and for the purpose described. 8th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of time mechanism arranged to operate a definite length of time, a device upon which the time mechanism is adapted to operate, means under the control of the operator or closing the receptacle, means under the control of the operator for preventing the operation of the time mechanism while the receptacle is closed as aforesaid, and means for preventing the

operator from interfering with the operation of the time mechanism when the receptacle is conditioned for the discharge of its contents, substantially as and for the purpose described. 9th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of time mechanism arranged to operate a definite length of time, means upon which the time mechanism is adapted to operate, auxiliary means under the control of the operator for closing the receptacle, and means connecting the time mechanism and the auxiliary means aforesaid so that when the receptacle is closed by said auxiliary means, the time mechanism will be prevented from operating, substantially as and for the purpose described. 10th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of time mechanism adapted to operate a definite length of time, means upon which the time mechanism is adapted to operate, and means for preventing the resetting of the time mechanism, said time mechanism including a quantity of a finely divided, solid substance and a chamber containing said substance and having an opening through which it escapes, substantially as and for the purpose described. 11th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of time mechanism arranged to operate a definite length of time, means upon which the time mechanism is adapted to operate, means for preventing the resetting of the time mechanism, auxiliary means under the control of the operator for controlling the discharge opening of the receptacle, and means connecting said auxiliary means with the time mechanism, said time mechanism including a quantity of finely divided solid substance, and a chamber containing said substance and having an opening through which it escapes, substantially as and for the purpose described. 12th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of two communicating chambers, a quantity of a finely divided solid substance in one of them, a spring-actuated follower controlled by said substance, and a device controlled by the follower, substantially as and for the purpose described. 13th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of two communicating chambers, a quantity of a finely divided solid substance in one of them, a spring-actuated follower controlled by said substance, a spring under tension, a device upon which it is adapted to operate when released, and means controlled by the follower for holding the spring under tension, substantially as and for the purpose described. 14th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle of two communicating chambers, a quantity of a finely divided solid substance in one of them, a spring-actuated follower controlled by said substance, a spring under tension, a device upon which the spring is adapted to operate, a latch engaging the spring and holding it under tension, and a stem carried by the follower and engaging the latch, substantially as and for the purpose described. 15th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination of a tube divided on its interior into two communicating chambers, a quantity of a finely divided solid substance in one of them, a follower controlled by said substance, a spring engaging the follower, a barrel secured to the tube and sustaining the spring, a main spring coiled around the barrel and secured at one end, a latch pivoted to the barrel and engaging the other end of the spring, a stem carried by the follower and engaging the latch, and a device upon which the main spring is adapted to operate when released, substantially as and for the purpose described. 16th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of time mechanism arranged to operate a definite length of time, means for preventing the resetting of the time mechanism, means upon which the time mechanism is adapted to operate, including a displaceable device, and an inscription which is normally covered by said displaceable device and which is uncovered when said device is displaced, substantially as and for the purpose described. 17th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of time mechanism arranged to operate a definite length of time, means for preventing the resetting of the time mechanism, and means upon which the time mechanism is adapted to operate, including a frangible device, substantially as and for the purpose described. 18th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of time mechanism arranged to operate a definite length of time, means for preventing the resetting of the time mechanism, and means upon which the time mechanism is adapted to operate, including a chamber containing a foreign substance, substantially as and for the purpose described. 19th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of time mechanism arranged to operate a definite length of time, means for preventing the resetting of the time mechanism, and means upon which the time mechanism is adapted to operate, said means including a valve, substantially as and for the purpose described. 20th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle and a device having automatically operating parts for preventing its reuse, of a liquid-tight enclosure located within the receptacle and enclosing said automatically operating parts so as to protect them from the liquid, a passage for the liquid being left between the receptacle and the

liquid-tight enclosure, substantially as set forth. 21st. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of time mechanism arranged to operate a definite length of time, means upon which the time mechanism is adapted to operate, and a liquid-tight enclosure, in which said time mechanism is contained, substantially as and for the purpose described. 22nd. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of time mechanism arranged to operate a definite length of time, a spring, means controlled by the time mechanism for holding said spring under tension, and a frangible shell in which the time mechanism is contained, substantially as and for the purpose described. 23rd. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of time mechanism, a spring under tension controlled by the time mechanism, and a shell of opaque, frangible material, in which the time mechanism and spring are contained, substantially as and for the purpose described. 24th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of time mechanism, a spring under tension controlled by the time mechanism, a frangible shell upon which the spring acts, and a foreign substance contained by the shell, substantially as and for the purpose described. 25th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of time mechanism, a spring under tension controlled by the time mechanism, a valve, and a frangible shell containing the valve and spring, substantially as and for the purpose described. 26th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination of a shell containing a foreign substance, and means for discharging said substance within the receptacle, substantially as and for the purpose described. 27th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of a valve, means for holding the valve temporarily unseated, a spring for seating the valve, and means for preventing access to the valve for thereafter unseating it, substantially as and for the purpose described. 28th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of a displaceable sleeve bearing an inscription, a part surrounded by the sleeve and bearing an inscription which is normally covered by the sleeve and uncovered when the sleeve is displaced, and means for displacing the sleeve, said means including time mechanism adapted to operate a definite length of time, substantially as and for the purpose described. 29th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of a tube, a follower arranged therein, means for controlling the position of the follower, a spring engaging the follower, a second spring, means for holding the second spring normally under tension, said means including a displaceable part engaged by the stem of the follower, and movable laterally with relation thereto, a valve for closing the receptacle, and means for preventing the unseating of the valve when once it is seated, substantially as and for the purpose described. 30th. In a device for preventing the fraudulent reuse of bottles or similar receptacles, the combination with the receptacle, of a spring, a device upon which it is adapted to operate, an escapement controlling the spring and arranged to operate a definite length of time, and means for preventing the operator from interfering with the operation of the escapement, substantially as and for the purpose described.

No. 56,466. Coupling for Pump-rod.

(*Joint pour bielles de pompes.*)

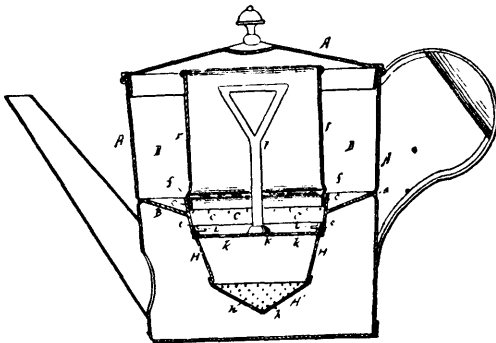


John Amstutz and John Amstutz, jr., both of Leo, Indiana, U.S.A., 2nd July, 1897; 6 years. (Filed 3rd June, 1897.)

Claim.—1st. A two-part pump-rod having its upper parts attached to any suitable motive power and its meeting ends vertically slotted

for the operating parts, in combination with a pump-handle pivotally fulcrumed in the upper pump-rod section, and having its inner end extended for the purpose specified, and means for pivotally connecting said handle with the adjacent end of the lower pump-rod section, whereby its said sections can be rigidly connected at pleasure, and the said lower section can be operated by means of said handle pivotally connected in said upper section without disengaging the said parts, substantially as described. 2nd. In a pump operated by a wind engine or other motive power, a pump-rod consisting of an upper and lower section connected at their meeting ends by a coupler constructed as described, pivotally connected to the lower section of said rod and at its upper end pivotally connected to the short arm of a pump-handle, which handle is pivotally fulcrumed upon the lower end of the upper section of the pump-rod, and so arranged that when the free end of the handle is depressed the said coupling at its upper end will be seated upon said fulcrum bolt of said handle and thus rigidly connect the two sections of said rod together for operating the pump by motor-power attached to said upper section, and that when the free end of the handle is elevated the coupling will be disengaged from its seat upon said fulcrum bolt, and the meeting ends of the two sections will be separated but still in alignment, and connected by said coupling, and that the pump can then be operated by the pump-handle independently of the motor-power attachment, in combination with said pump-handle and a proper motor-power attachment. 3rd. The combination in a pump operated by a motive-power of a two-part pump-rod, consisting of an upper and lower section connected at their meeting ends by a coupler as described, pivotally connected at its lower end to said lower section, and at its upper part to the short arm of a pump-handle, the handle being pivotally fulcrumed upon the lower end of the upper section of a pump-rod as shown, a boxing or casing 10, secured to the upper section of the pump-rod and extending below the meeting ends of the two sections as a guide for said lower section and to keep it in constant alignment with the upper section, and means for connecting said pump-rod to the motive-power, all arranged substantially as described. 4th. The combination of a pump operated by mechanical power, of a pump-rod comprised of an upper and lower section having a pump-handle pivotally fulcrumed upon the lower end of the upper section and a coupler constructed as described pivotally secured to the inner short arm of said handle and also pivotally secured to the upper end of the lower section of said rod, and so arranged that by depressing the free end of said pump-handle the adjacent ends of the said sections will be rigidly secured together, and that by elevating said free end of the handle the adjacent ends of the pump-rod sections will be separated and the pump can then be operated by means of the pump-handle independently of the motor, and without disconnecting the coupler from either of the two sections, in combination with said pump-handle and a suitable motor-power, all substantially as described.

No. 56,467. Coffee Pot. (Cafetière.)



56467

Charles H. Chase, Newport, Rhode Island, U.S.A., 2nd July, 1897; 6 years. (Filed 3rd June, 1897.)

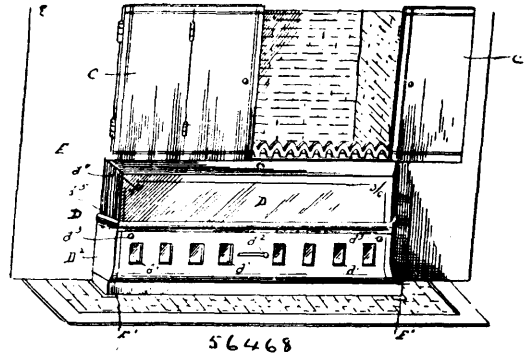
Claim.—The herein-described improved coffee pot, comprising the ordinary sides A, the downwardly-inclined partition B, provided on its inner edges with the tapered perforated ring C', and supported by said sides, the cylinder F, supported by said ring, said cylinder, ring and partition constituting, with the sides of the coffee pot, a separate water chamber, the cone-shaped coffee-holder H, supported in and by the lower portion of the ring C, and provided with the perforated bottom H', and the perforated disc K', resting in and supported by the upper portion of the sides of the coffee holder H and provided with the handle P, extending into the central cylinder, substantially as described.

No. 56,468. Fireplace. (Foyer.)

Jacob R. Donaldson, Oliphant Furnace, Pennsylvania, U.S.A., 2nd July, 1897; 6 years. (Filed 3rd June, 1897.)

Claim.—1st. The combination with a fireplace and hearth, the hearth having slotted plates and recesses below said plates, of a front and fender made up of two sections held in sliding engagement with

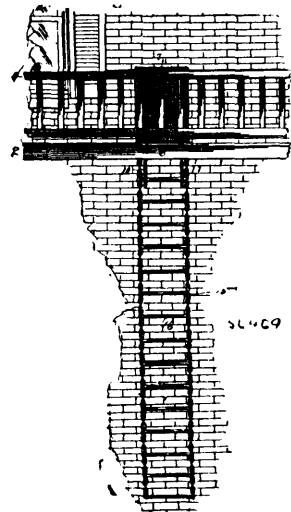
each other, the lower section having projections which engage the slotted plates, substantially as shown, for pivotally connecting the



front and fender to the hearth, so that the same may be used either in a vertical or in a horizontal position, for the purpose set forth. 2nd. The combination, in a fireplace, of a front, as E, having outwardly-projection portions or plates E', which extend over the hearth and are slotted as shown, together with a fender having plates which pass through the slots, said plates having hooked ends e', for the purpose set forth. 3rd. In combination with a fireplace and grate supported therein, of a fender and front supported by the hearth, the combined fender and front being made up of two sections, the lower section having projecting portions at its side for engagement with a plate E, said plate having continuous horizontal and vertical slots, the lower section also having openings and a damper, and the upper section which is carried thereby adapted to engage with the grate so as to support the front in a vertical position in front of the grate, substantially as shown and for the purpose set forth. 4th. In combination with a fireplace and grate, of a combined and front made up of two sections, the inner section being held in sliding engagement with the cutter section and the outer section being connected to the hearth to be supported in vertical and horizontal positions, together with means carried by the grate or sliding section for holding the sections in engagement with each other when the inner section is in an extended vertical position, substantially as shown and for the purpose set forth.

No. 56,469. Fire Escape.

(Sauveteur d'incendie.)



56469

Joab J. Markel, Nankin, Ohio, U.S.A., 2nd July, 1897; 6 years. (Filed 3rd June, 1897.)

Claim.—1st. In a fire escape, the combination with a balcony provided with an opening, of a hinged trap door adapted to close said opening, a flexible ladder connected to the balcony, a catch, and a locking rod adapted for engagements with said catch, said rod being adapted to hold the ladder raised, and to be operated when the trap-door is removed, so that the ladder is released. 2nd. In a fire escape, the combination with a balcony provided with an opening, of a hinged trap-door adapted to close said opening, locking-rods pivoted to the trap-door, catch-loops connected to the

balcony, and a flexible ladder connected to the balcony, said ladder being normally held in raised position by the locking rods, and allowed to drop when the locking rods are pulled out of the catch-loops when the trap-door is raised.

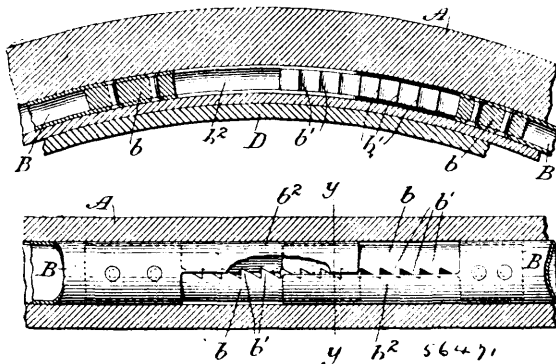
No. 56,470. Production of Fuel.

(Fabrication de combustible.)

Thaddaus Amkiewicz, Kattowitz, Ob Schlesien, Germany, 2nd July, 1897; 6 years. (Filed 3rd June, 1897.)

Claim.—1st. In a fuel, the combination with a suitable carrier, as sawdust, turf or turf-dust, of unpurified naphtha, rosin and lime, substantially as set forth. 2nd. In the production of a fuel, the employment of a suitable carrier, as sawdust, turf or turf dust, unpurified naphtha, rosin and slaked lime, which mixture is heated in suitable boilers and then cast in moulds, substantially as described. 3rd. In the production of a fuel, the employment of a suitable carrier, as sawdust, turf or turf dust, unpurified naphtha, rosin and unslaked lime, which is then slaked so as to produce heat for heating the mixture.

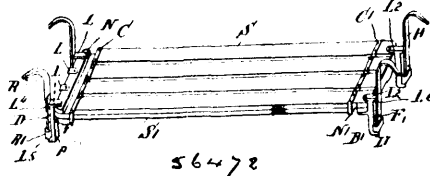
No. 56,471. Tire. (Bandage).



Augustus Hodgman, Yonkers, New York, U.S.A., 2nd July, 1897; 6 years. (Filed 3rd June, 1897.)

Claim.—1st. A solid rubber tire having a core wholly enclosed within and covered by the body of the tire, the ends of said core being overlapped and formed on their abutting faces with inclined, interlocking teeth to slip past each other as the tire is compressed and to engage automatically, the one with the other, to prevent expansion of the tire. 2nd. A solid rubber tire having a core wholly enclosed within and covered by the body of the tire, the ends of said core being reduced in width and overlapped and formed on their abutting faces with inclined, interlocking teeth which permit the ends to slide past each other as the tire is compressed and engage with each other to prevent expansion of the tire.

No. 56,472. Seat. (Sidge.)

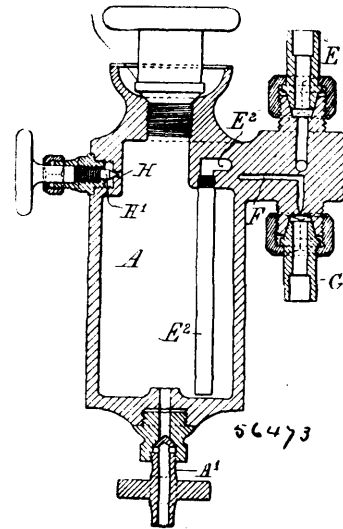


Charles Henry Stephenson, Lynn, Mass., U.S.A. 2nd July, 1897; 6 years. (Filed 3rd June, 1897.)

Claim.—1st. A seat for bath-tubs, comprising a seat proper, brackets secured thereto at each end, said brackets having right angle arms at each corner of the seat, and hangers for supporting said seat from the edge of the bath-tub, said brackets being pivotally connected to said hangers at points non-coincident with the plane of the seat. 2nd. A seat for bath-tubs having the seat proper secured to brackets at each end, said brackets being pivotally supported in hanger-arms at points non-coincident with the plane of the seat, and engaging devices between the brackets and hanger-arms adapted to hold the parts in their positions of use. 3rd. A bath-tub seat comprising a seat portion proper, brackets secured at each end thereof, hanger-arms pivotally attached to said brackets at points non-coincident with the plane of the seat, and soft rubber cushions disposed between the brackets and the sides of the tub, as and for the purpose described. 4th. An adjustable seat having each of its ends secured to pairs of pivoted brackets at points non-coincident with the pivot of said brackets, said brackets being pivoted, respectively, in independent hangers adapted to engage with the edge of a bath-tub or other suitable support, said seat adapted upon bodily rotation to have either of its sides used at will

but in different planes. 5th. A bath-tub seat comprising two sets of overlapping slats, engaging devices secured at one end of the slats at each set, and loosely embracing the slats at the other set, and dependent hanger-arms or supports pivotally connected to said brackets at points non-coincident with the plane of the seat, whereby said seat may be adjusted both horizontally and vertically. 6th. A bath-tub seat, comprising the seat portion proper having right-angle extensions at both ends thereof, depending hanger-arms having lugs or right angle projections adapted to engage with the edge of the bath-tub, and pivotal connections between said hanger-arms and said extensions at points non-coincident with the plane of the seat, as and for the purpose set forth. 7th. An adjustable seat, for bath-tubs comprising a seat proper having at each of its ends a pair of brackets secured thereto, with hangers, one pivoted to each of said brackets at a point non-coincident with the plane of the seat and adapted at its free end to engage the edge of a bath-tub or other support, whereby, by reversing the seat and rotating hangers, the seat may be supported at different elevations, substantially as described.

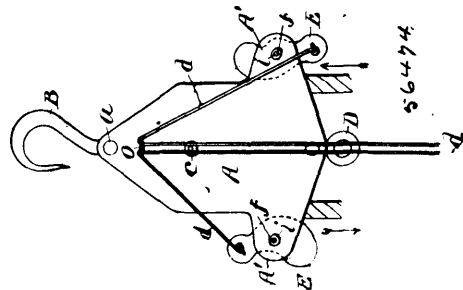
No. 56,473. Sight Feed Lubricator. (Graisseur.)



Charles Cheers Wakefield, Streatham, Surrey, England, 2nd July, 1897; 6 years. (Filed 2nd June, 1897.)

Claim.—1st. In a sight-feed lubricator in which the feed can be continued independently of the sight-glass should the latter break. 2nd. In a sight-feed lubricator a valve arranged in the passage leading from the top end of the sight-glass so that such passage will be automatically closed should the glass break. 3rd. In a sight-feed lubricator a by-pass passage and valve H¹ therein to enable a secondary feed to be obtained should the sight glass break. 4th. In a sight feed lubricator the employment of one or more valves so arranged that should the sight-feed glass break the valve or valves would automatically cut off access of pressure thereto and open another feed passage for the purpose described. 5th. In a sight-face lubricator a double valve D¹, D², Figure 6, and passages H, F¹, B³, F, in conjunction therewith, substantially as and for the purpose described.

No. 56,474. Tackle Block. (Poulie de palan.)

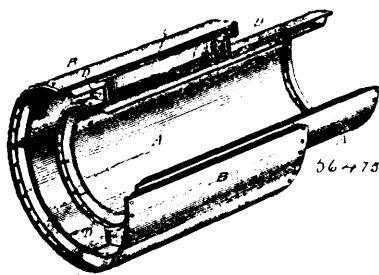


John Fraser and Duncan Campbell, both of Detroit, Michigan, U.S.A., 2nd July, 1897; 6 years. (Filed 2nd June, 1897.)

Claim.—1st. In a pulley block, the combination with the shell, of the sheave journaled therein, a rope passing around said sheave,

the rigid friction block adjacent to said sheave against which the rope is adapted to lie, and the catch adjacent to said block for locking the rope against the face thereof. 2nd. In a pulley block, the combination with the shell, of the sheave journaled therein, the rope passing over said sheave, the rigid friction block adjacent to said sheave but independent thereof and lying between the lines of rope passing over the sheave, said block having grooved ends which receive said rope, and the locking cams pivoted adjacent to the ends of said block to lock the rope against the face thereof. 3rd. In a pulley block, the combination of the opposed plates forming the shell of the block, the sheave journaled between said plates, the rope passing over said sheave, the friction block interposed between said plates adjacent to the sheave, the gravity locking cams pivoted between said plates adjacent to the end of the friction block, the cords attached to one side of said cams and passing upward through an eye in one of said plates, thence downward within the reach of the operator. 4th. In a pulley block, the combination of the opposed plates forming the shell of the block, said plates having laterally extending wings, the sheave journaled between said plates adjacent to and below said sheave, the gravity pawls pivoted between the lateral wings of said plates adjacent to the ends of said friction block, said cams being so hung that the high point of one swings toward and from said friction block in the upper arc of a circle, while the other cam swings toward and from the opposite end of said block in the lower arc of a circle. 5th. In a pulley block, the combination of the opposed plates forming the shell of the block, the sheave journaled between said plates, the rope passing over said sheave, the opposed locking cams journaled between the side extensions of said plate, and the interposed friction block located between said cams, the ends of which block extend beyond the line of the periphery of said sleeve. 6th. In a tackle block, the combination of the opposed plates, the sheave journaled between said plates, the rigid friction block adjacent to said sheave and lying between the lines of rope passing thereover, said block having a curved and grooved end, the gravity cam located adjacent to the end of said block, said cam having diagonal grooves in the engaging face thereof.

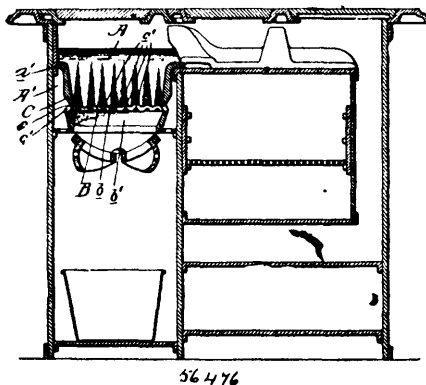
No. 56,475. Boiler. (*Chaudière.*)



The New York Central Iron Works Company, assignee of George W. Johnson, both of Geneva, New York, U.S.A., 3rd July, 1897; 6 years. (Filed 4th June, 1897.)

Claim.—1st. A boiler consisting of two annular shells arranged one within the other with their water spaces connected, the inner shell projecting at one end, and the outer shell projecting at the opposite end, substantially as and for the purpose set forth. 2nd. A boiler consisting of two shells within the other, the two shells having their water spaces connected at opposite sides by oblong openings, and the inner shell being provided with an opening to serve as a direct draft passage, substantially as shown and described.

No. 56,476. Fire-box Lining. (*Doublures pour boîtes à feu.*)

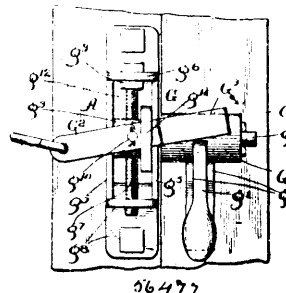


The Buck's Stove and Range Co., assignee of William Thompson, both of St. Louis, Missouri, U.S.A., 3rd July, 1897; 6 years. (Filed 4th June, 1897.)

Claim.—1st. A fire-box lining having one or more openings therein, and provided with a shoulder or lip above said openings. 2nd. A fire-box lining provided with a shoulder or lip on its inner edge, and perforations or openings which open downwardly below said shoulder. 3rd. A fire-box lining having an outwardly extending flange at its upper edge, a cut-away portion at the lower edge of the inner face forming a shoulder or lip and an inclined face below said shoulder, and apertures opening into the fire-box below said shoulder. 4th. The combination with the side walls of the combustion chamber, of a fire-box lining spaced from said side walls, said lining having a lip or shoulder on its inner face, and openings beneath said shoulder, substantially as described. 5th. The combination with the side walls of the combustion chamber, of a fire-box lining spaced from said side walls, said lining having apertures or openings therein, lips or shoulders above said openings, and an inclined face below said shoulders or lips, substantially as described.

No. 56,477. Gate Latch and Operating Device.

(*Loquet pour portes.*)

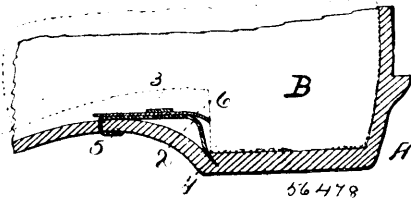


Theodore Smith, Georgetown, Illinois, U.S.A., 3rd July, 1897; 6 years. (Filed 5th June, 1897.)

Claim.—1st. A latch for gates comprising a bracket supported upon a suitable post, an oscillating latch pivoted in said bracket, a roller journaled upon the gate and resting upon the bracket when in a closed position, an unlocking lever adapted to depress the latch, in combination with an operating lever E, and means for connecting the unlocking lever with the operating lever. 2nd. A latch for gates comprising a supporting bracket, an oscillating latch pivoted thereto, a roller journaled upon the gate, an unlocking lever adapted to depress said latch in combination with means for operating the unlocking lever. 3rd. A latch for gates comprising a bracket, a weighted latch pivoted upon said bracket, a roller adjustably secured to the gate, an unlocking lever adapted to depress said latch, in combination with means for operating said unlocking lever. 4th. A latch for gates comprising a bracket, a weighted latch pivoted thereto, a roller resting upon said bracket when the gate is in a locked position, a bracket upon the end of the gate adjacent to the latch supporting said roller, an adjusting screw supported upon the gate and adapted to raise and lower said bracket and an unlocking lever pivoted upon said bracket and adapted to depress the latch and allow the roller to freely pass by. 5th. In a latch for gates, the combination with a supporting bracket, a weighted latch pivoted thereto, a roller resting upon the bracket when in a closed position, a bracket upon the end of the gate adjacent to the latch supporting said roller, a plate secured to the gate and having ears extending therefrom, an adjusting screw loosely resting in said ears and connecting the bracket with said ears whereby said bracket may be adjusted vertically, an unlocking lever pivoted upon the bracket and normally resting upon the latch, and means for oscillating the lever and depressing the latch, substantially as described. 6th. In a device of the class described, the combination with a weighted latch pivoted to a suitable support and lying in the path of the locking roller, a bracket having suitable dove-tailed edges, a supporting plate secured to the gate and having tongues fitted in said edges, an adjusting screw connecting said plate with the bracket, a roller journaled upon said bracket, an unlocking lever pivoted upon the bracket and adapted when oscillated in one direction to depress the latch and suitable means for operating said locking lever, substantially as described. 7th. In a device of the class described, the combination with a suitable latch having an unlocking lever, of a bell-crank lever pivoted upon a suitable support, a guide located upon the gate and having a suitable slot, a rod secured to the free end of one of the arms of the bell-crank lever and having its end bent downward and sliding in said slot, and a rod connecting said downturned end with the unlocking lever, substantially as and for the purpose set forth. 8th. In a device of the class described, the combination with a suitable latch having an unlocking lever, of a bell-crank lever pivoted to a suitable support, a guide located upon the gate and having a suitable slot, a rod secured to the free end of the arms of the bell-crank lever and having its end bent downward and guided in said slot, a rod connecting the downturned end with the unlocking lever, a suitable turn-buckle upon said rod for adjusting the length of the same, an operating lever E, and a wire connecting it to the free end of the other arm of the bell-crank lever, substantially as described. 9th. In a device of the class described, the

combination with a suitable operating lever E, of a bell-crank lever pivoted upon a suitable support, a gate, a rod connecting the free end of one of the arms of the bell-crank lever with the gate, a rod F², connecting the other arm with the operating lever E, a roller supported upon the gate, a latch J, supported upon a suitable post and lying in the path of said roller, an unlocking lever j, adapted to actuate said latch and loosen the same when said unlocking lever is raised, a rod j², connecting said unlocking lever with the operating rod F², said rod having sufficient slack to allow the unlocking lever to lie below the weighted end of said latch, but when said operating rod is straightened to raise said lever and release the roller, substantially as described. 10th. In a device of the class described, the combination with a swinging gate, of a suitable latch adapted to hold said gate in a closed position, a bell-crank lever, suitable means for connecting the bell-crank lever with the latch, operating levers and means connecting the operating levers with the bell-crank lever, and adjusting devices for taking up the slack comprising substantially the screw-threaded rods e¹, having the cranks e², and swivels e³, e⁴, substantially as described.

No. 56,478. Rubber Holder. (Porte-caoutchouc.)

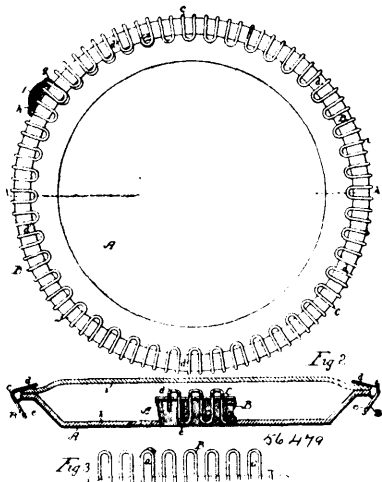


Henry Brazier Crampton, Syracuse, New York, U.S.A., 3rd July, 1897; 6 years. (Filed 4th June, 1897.)

Claim.—1st. A rubber holder, comprising a body adapted to be secured upon the shank of a rubber, a loop upon said body, and a finger adapted to be adjustably projected rearwardly to bring its rear end into position to engage with the front of the heel of a shoe within said rubber. 2nd. A rubber holder comprising a body, and means to secure it to the rubber in front of and adjacent to the heel portion thereof, in combination with a spring finger mounted upon said body and adapted to be adjusted longitudinally according to the sizes of the shoe heels, to engage with the front only of the heel of the shoe in the rubber, and to be locked in the position at which it is set. 3rd. A rubber holder consisting of a body, prongs at the ends to secure it to the rubber, a loop on said body, a spring finger loose in said loop, a dog pivoted on said body and adapted to engage with one of the series of notches in said finger, and whereby said finger is adjusted longitudinally to engage with the front only of the heel of a shoe in the rubber.

No. 56,479. Pie Rim or Band.

(Bord ou bande pour plats.)

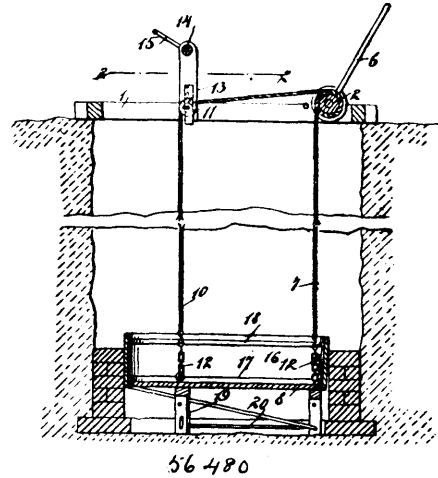


Isaac N. Weitzel, Rochester, New York, U.S.A., 3rd July, 1897; 6 years. (Filed 5th June, 1897.)

Claim.—1st. A band for a receptacle, as a pie-tin, made of elastic material, as metal wire, having transverse loops, and a clasp or fastener for the band, substantially as shown and described.

2nd. A band for a receptacle, as a pie-tin, made of elastic material, as steel wire, having transverse loops bent laterally along a longitudinal line, forming an upper and a lower looped flange, substantially as specified. 3rd. A pie-tin provided with a removable elastic band formed of a series of loops bent transversely so as to form a part extending over the rim of the pie-tin and another part hanging under the rim, substantially as set forth, and a fastener for the band.

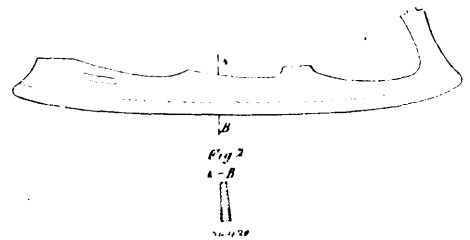
No. 56,480. Apparatus Employed in Walling Excavations. (Appareil pour le remplage des excavations.)



William Charles Thomas, Fountain, Kansas, U.S.A., 3rd July, 1897; 6 years. (Filed 7th June, 1897.)

Claim.—1st. A device for the purpose described, comprising a frame adapted to rest on the ground at the upper end of the pit, a windlass mounted to rotate in said frame, a ratchet wheel on one end of said windlass, a dog pivoted to the frame and engaging the said ratchet wheel, means for turning the windlass, a platform, three ropes extended from the windlass to connections with the platform, pulleys over which two of said ropes extend, and a gauge-frame removably mounted on the platform, substantially as specified. 2nd. A device for the purpose described, comprising a frame designed to rest upon the ground, a windlass mounted to rotate in said frame and provided with holes for the insertion of a turning lever, a platform, legs on the said platform, a rope extended from the windlass to a connection with the platform, pulleys mounted on the frame, ropes extended from the windlass over said pulleys to connections with said platform, a lowering windlass mounted on said frame, and a gauge-frame loosely surrounding the platform, substantially as specified.

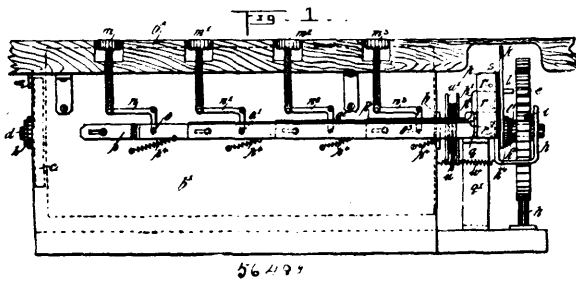
No. 56,481. Skates. (Patins.)



Richard Becker Reimscheid, Prussia, Germany, 3rd July, 1897; 18 years. (Filed 7th June, 1897.)

Claim.—Runners for skates, where the lateral edges of the lower thread are steeled, while the central part is formed of iron for the purpose to allow the lateral edges to be hardened and to reduce thereby the wearing as compared with the central part of the hollow ground thread, substantially as set forth and shown in the accompanying drawing.

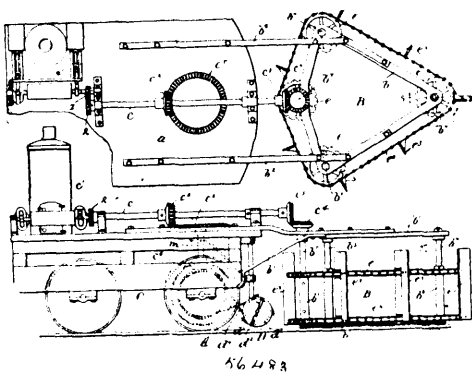
No. 56,482. Combined Measure and Cost Indicating Machine. (*Mesure et machine à indiquer le prix.*)



Alfred Smith, 71 Cathedral Square, Canterbury, New Zealand, 3rd July, 1897; 6 years. (Filed 14th April, 1897.)

Claim.—1st. In a machine for indicating the cost of goods sold by lineal measurement, a spring driven roller having cost markings in longitudinal and circumferential columns upon its periphery, such roller being controlled by ratchet and escapement gearing operated by tappets placed at intervals upon a measuring staff whereby one or other of the longitudinal columns of figures is brought into position in relation to a fixed indicating scale substantially as specified. 2nd. A roller having cost markings in longitudinal and circumferential columns upon its periphery, an indicating scale fixed above it denoting the prices to which the circumferential columns are devoted, a spring for revolving the roller, and a ratchet wheel upon the roller axle, controlled by an escapement, whereby one or other of the longitudinal columns is brought into indicating position, slide bars for operating and differentiating the action of the escapement, and tappets fixed upon bell-crank levers for operating the slide bars, substantially as and for the purposes herein described. 3rd. The spring driven roller *a*, the ratchet escapement wheel *c*, journaled upon the roller axle and revolving with it in one direction, the pivoted loop *h*, and the spring *w*, the pawl pin *l*, normally engaging the wheel *c*, the lever *k*, upon the boss *k*², having a pawl pin *l*, engaging wheel *c*, when the loop is vibrated, the spring *x*, operating upon the lever *k*, and the stop pin *g*, the whole substantially as herein described. 4th. The spring driven roller *a*, the ratchet wheel *c*, fixed upon a sleeve journaled upon the roller axle, an arm *f*, upon the sleeve having a pawl *g*¹, engaging with a ratchet wheel *g*, fixed upon the axle, the sheave *u*¹, and the cord *u*, coiled around it for returning the roller to starting point, substantially as specified.

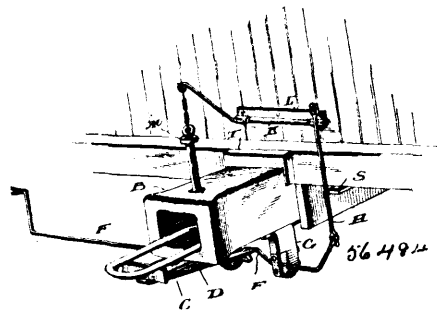
No. 56,483. Snow Plough. (*Charrue à neige*)



Carl A. Scott and William F. Smith, both of Melrose, assignees of Abel Nutting and W. Jenness, both of Quincy, all in Massachusetts, U.S.A., 3rd July, 1897; 6 years. (Filed 7th June, 1897.)

Claim.—In a snow-plough, in combination, a framework provided with vertical shafts, sprocket-wheels fast upon said shafts, sprocket-chains mounted upon said wheels, shovels mounted upon said chains and arranged to rotate in a horizontal direction, combined with a rail-cleaner comprising a horizontal shaft, discs mounted upon each end of said horizontal shaft, provided with fan-shaped blades to clear the snow from the tops of the rails, and with spring-fingers extending beyond the peripheries of said discs, arranged to clear the grooves in the rails, and means connected to said vertical shaft and to said horizontal shaft for imparting motion to said shovels and to said blades and fingers, substantially as and for the purpose set forth.

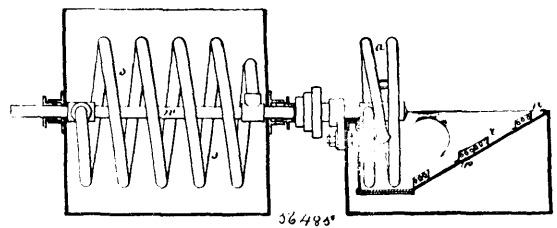
No. 56,484. Car Coupler. (*Attelage de chars.*)



Robert W. Riggins, Mawry, Tennessee, U.S.A., 3rd July, 1897; 6 years. (Filed 7th June, 1897.)

Claim.—In a car coupler, the combination with the draw-head mounted as described, of a link carrying and guiding member, slidably held in a recess in the under side of the draw-head, the crank shaft journaled therein, the lever connecting the sliding link carrying member with a crank in the said shaft, to reciprocate the said member, of the shaft pivoted in a bracket on the end of the car, a rod connecting one end of the said crank shaft with the said shaft journaled in a bracket on the end of the car, and a pin carried on its other outwardly turned end, whereby, as the crank shaft is rocked in one direction, the said link carrying member is caused to slide back, and the pin lowered, and when rocked in the opposite direction, a reverse movement is imparted to the link carrying member and the pin, substantially as described.

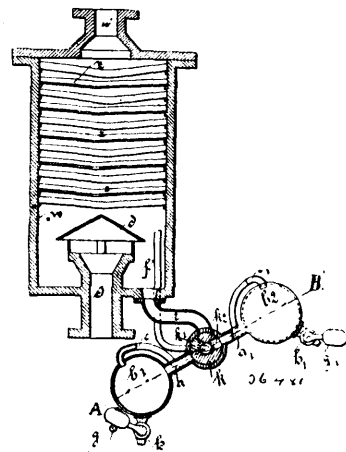
No. 56,485. Revolving Pump without Valve, which can also be used as Refrigerator. (*L'ompe et refrigerateur combinés.*)



Hugo Kohl, Dusseldorf, Germany, 5th July, 1897; 6 years. (Filed 7th June, 1897.)

Claim.—1st. A pump for raising liquids, composed of coiled circular tubes *a*, and a hollow shaft *w*, with which such tubes communicate, substantially as specified. 2nd. A pump for raising liquids, composed of coiled circular tubes *a*, and a communicating hollow shaft *w*, combined with a spiral mounted upon said shaft and a cooling or heating vessel enclosing said spiral, substantially as specified.

No. 56,486. Apparatus for Separating Water from Steam. (*Appareil à séparer l'eau et la vapeur.*)

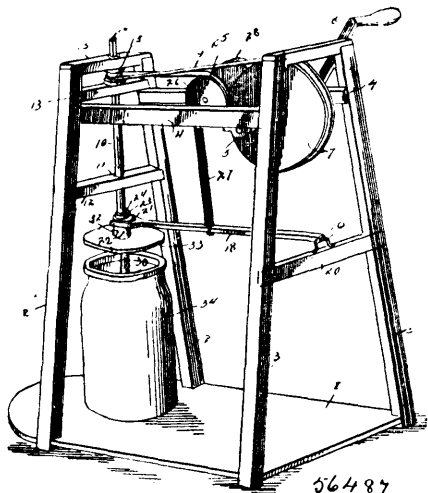


Hugo Kohl, Dusseldorf, Germany, 5th July, 1897; 6 years. (Filed 7th June, 1897.)

Claim.—1st. A steam and water separator composed of inclined perforated troughs arranged in staggered rows, and an enclosing re-

ceptacle having a steam inlet and outlet and a water outlet, substantially as specified. 2nd. A steam and water separator composed of a receptacle, troughs contained therein, a water pipe connecting with the receptacle, and a pair of counterbalancing vessels, adapted to be brought into alternate communication with such pipe, substantially as specified. 3rd. A steam and water separator composed of a receptacle, troughs contained therein, a return steam pipe and a water pipe connecting with the receptacle, a pair of counterbalancing vessels adapted to be brought alternately into communication with said pipes, and having weighed discharge cocks, and stops adapted to engage said cocks, substantially as specified.

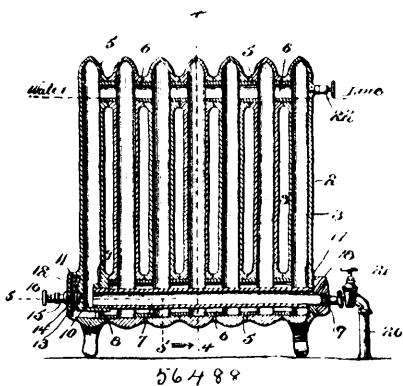
No. 56,487. Churn. (Baratte.)



William L. Wright, William H. Stracener and Hiram W. Stracener, all of Bettres, Texas, U.S.A., 5th June, 1897; 6 years. (Filed 7th June, 1897.)

Claim.—The combination with a supporting frame provided with vertical guides, and a dasher staff mounted for rotary and reciprocatory movement in said guides, of a driven pulley arranged coaxially with the dasher staff and held from vertical movement, the same being provided with an angular bore through which a contiguous angular portion of the dasher staff extends, a driven pulley having a horizontal axis, a belt wheel having a horizontal axis arranged between the driving and driven pulleys with its upper side approximately in the plane of the driven pulley, a belt connecting the driving and driven pulleys and having its lower side carried over the intermediate belt wheel to arrange both sides of the belt wheel contiguous to the driven pulley in the plane of the latter, an oscillatory arm fulcrumed at one end upon the frame and having a swivelled connection at the other end with the dasher staff, and a pitman connecting the belt wheel with said arm.

No. 56,488. Steam or Hot-water Radiator. (Calorifère à eau ou vapeur.)

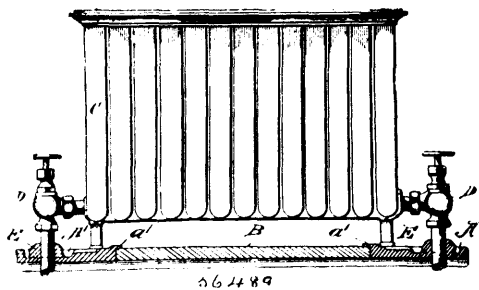


Wm. A. SeEVERS and Thomas SeEVERS, both of Oskaloosa, Iowa, U.S.A., 5th July, 1897; 6 years. (Filed 7th June, 1897.)

Claim.—1st. A radiator, comprising a series of upright hollow sections formed with opposite tubular columns or legs communicating with each other at the top and bottom, one of the end sections of

the radiator being provided within its lower end with a partition separating the opposite tubular columns or legs of the section at their lower ends, and a horizontal steam pipe extending continuously through all sections of the radiator at the bottom and fitted at one end in said partition so as to communicate with one of the tubular columns or legs of said end section, substantially as set forth. 2nd. A radiator, comprising a series of upright hollow sections formed with opposite tubular columns or legs communicating with each other at the top and bottom, one of the end sections being provided within its lower end with a partition boxing separating the opposite tubular columns, and at one side of said boxing with an offset drain chamber, said boxing being provided in one side with a pipe-opening and in the directly opposite side with a drain opening, a suitably operated drain valve working within said drain chamber and adapted to cover and uncover said drain opening, a steam pipe extending continuously through the interior lower portion of the radiator and fitted at one end in said pipe opening of the partition boxing, a valved supply pipe connection with the other end of said steam pipe, and an air vent valve fitted to one of the end sections of the radiator near the top, substantially as set forth.

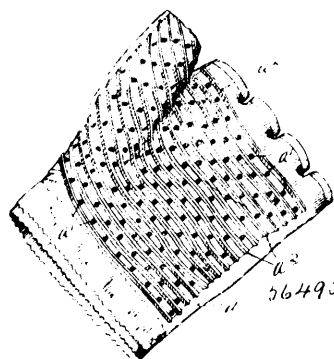
No. 56,489. Radiator Rest. (Support de calorifères.)



James F. Gorman, Wilkesbarre, Pennsylvania, U.S.A., 5th July, 1897; 6 years. (Filed 7th June, 1897.)

Claim.—1st. As an improved article of manufacture, a casting, comprising in a single element a combined rest for a radiator, a drip cup and a bushing, substantially as described. 2nd. As an improved article of manufacture, a casting, comprising in a single piece a body portion having a depression forming a drip cup, and a horizontal portion extended upon the same and forming a support for the legs of a radiator, substantially as described. 3rd. As an improved article of manufacture, the end piece described, comprising in a single piece a body portion with a depression forming a drip cup, and a horizontal portion extending from the same and forming a support for the legs of the radiator and having a flange, substantially as and for the purpose specified.

No. 56,490. Washing Glove. (Gant à laver.)



Josephine Chalfant, Winnipeg, Manitoba, Canada, 5th July, 1897; 6 years. (Filed 7th June, 1897.)

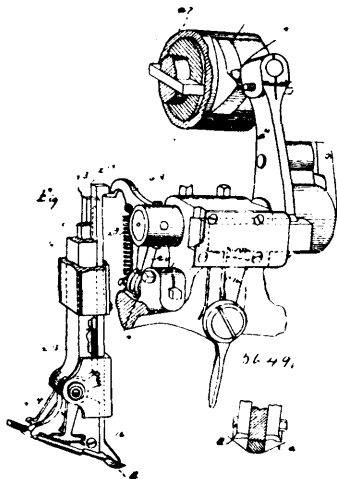
Claim.—1st. A washing mit or glove having perforations in those portions of its body with which the rubbing is done, as and for the purpose set forth. 2nd. A washing mit or glove having projections and perforations on those portions of its body with which the rubbing is done, substantially as described. 3rd. A rubber washing mit or glove having transverse corrugations on its palm and the under side of its thumb, and provided with perforations between the raised or projecting parts of said corrugations, substantially as described.

No. 56,491. Lasting Machine. (Machine à enformer.)

Sherman W. Ladd, Beverly, Mass., U.S.A., 5th July, 1897; 18 years. (Filed 7th June, 1897.)

Claim.—1st. In a lasting machine, in combination, upper working devices, a cutter mechanism having a plurality of cutter-blades sup-

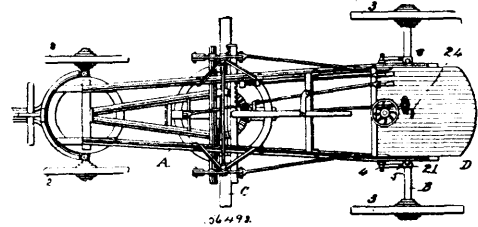
ported for cutting the upper at opposite sides of the upper working devices, and actuating appliances arranged for moving the cutter-



blades to cut the upper in different time relations, substantially as described. 2nd. In a lasting machine, in combination, the gripper members, a recess in one of the gripper members, a cutter-blade in said recess for cutting the upper at one side of the gripper members, and means to move the cutter-blade in the cutting operation, substantially as described. 3rd. In a lasting machine, upper working devices, a plurality of cutter-blades and means for actuating the cutter-blades, said means including the rock-shaft a^2 , carrying-arm a^4 , and rocking connections, substantially as described. 4th. In a lasting machine, in combination, upper working devices for working the upper over the last, a cutter mechanism, including a plurality of cutter-blades supported suitably for cutting the upper at opposite sides of the upper working devices, the blades being moved separately, and a single actuating mechanism arranged for moving the cutter-blades to cut the upper in different time relations, substantially as described. 5th. A machine of the character indicated, having in combination upper working devices, a cutting mechanism, including a cutter-blade supported suitably for slitting the material at one side of and slightly distant from the upper working devices, driver connections for moving the cutter-blade progressively in the slitting operation from the point of beginning its operation at the marginal edge of the upper material to the terminal or union end of the slit, and actuating appliances adapted for moving the upper-holding devices into holding the material strained over the last during the slitting operation and continuously thereafter, while the parts separated by said slitting operation are superimposed one upon the other, substantially as described. 6th. A lasting machine, having in combination upper working devices for working the upper over the last, actuating appliances imparting the necessary movements to said devices and repeating the movements thereof at intervals during the lasting operation, a cutter mechanism provided with cutter means to be moved for slitting the upper at opposite sides of the upper working devices, and actuating appliances for moving the cutter, means to perform the cutting operations, said actuating appliances having provision for causing the cutter means to move during one operation of the upper working devices for slitting the upper at one side of and cause it to move during another operation of the upper working devices for slitting the upper at the other side thereof, substantially as described. 7th. A lasting machine, having in combination upper working devices for working the upper over the last, actuating appliances imparting the necessary movements to said devices and repeating the movements thereof at intervals during the lasting operation, a cutter mechanism provided with cutter means to be moved for slitting the upper at opposite sides of the upper working devices, and actuating mechanism for moving the cutter, means to perform the slitting operation, said actuating mechanism having provision for moving the cutter, during one operation of the upper working devices, to slit the upper at one side thereof and move the cutter means during another operation of the upper working devices for slitting the upper at the other side thereof, and means controllable by the workman, to start and stop the cutting operations at will, substantially as described. 8th. A lasting machine, having in combination upper working devices, actuating appliances for moving said devices forwardly and backwardly and laterally in opposite directions, a cutter mechanism provided with cutter means permitting movement for slitting the upper at opposite sides of the upper working devices, driver connections for moving the cutter, means to perform the slitting operation, and a suitable connection where

through movement of the upper working devices to one side puts the parts in work relation for the slitting of the upper on one side of the upper working devices, and movement of the upper working devices laterally to the other side puts in work relation the parts for slitting the upper at the other side thereof, substantially as described. 9th. In a lasting machine, upper working devices, actuating appliances for causing said devices to strain the upper over the last, a cutter-blade at the side of the upper working devices, inclined relatively to the holding plane thereof and movable for slitting the upper while it is strained thereby, and means for moving the cutter-blade, substantially as described.

No. 56,492. Machine for Making and Repairing Roads.
(*Machine pour construire et reparer les chemins.*)

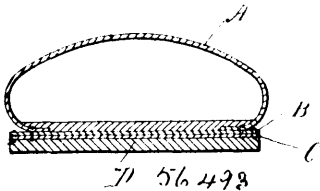


Frederick C. Austin, assignee of Morton G. Bunnell, both of Chicago, Illinois, U.S.A., 5th July, 1897; 6 years. (Filed 8th June, 1897.)

Claim.—1st. A machine for making and repairing roads, comprising a body frame pivoted at its forward end upon a wheeled axle; a vibratory rear bolster upon which the middle portion of the rear end of the body frame is pivoted; a relatively long, rear wheeled axle upon which the rear bolster is supported for sliding adjustment, a diagonally adjustable scraper-blade arranged between the front and rear wheels; adjusting mechanism for skewing the rear bolster and rear axle alternately in opposite directions, and adjusting mechanism for adjusting the rear bolster alternately in opposite directions along the rear axle, substantially as set forth. 2nd. In a machine for making and repairing roads, the body frame carrying a diagonally adjustable scraper blade and having its forward end pivoted upon a wheeled axle, a rear bolster upon which the rear end of the body frame is pivoted, a relatively long rear axle upon which the rear bolster is supported for sliding adjustment, an adjusting mechanism for skewing the rear bolster, applied to opposite ends of the latter and arranged to be operated by and at will of an attendant standing upon the rear end of the body frame, and an adjusting mechanism also arranged to be operated by and at will of said attendant and applied for shifting the rear bolster along the rear axle, substantially as set forth. 3rd. In a machine for making and repairing roads, the body frame carrying a diagonally adjustable scraper blade and having its forward end pivoted upon a wheeled axle, a vibratory rear bolster upon which the rear end of the body frame is supported, a long, wheeled rear axle provided with a longitudinally arranged rack and supporting the rear bolster which is arranged to slide along said rear axle, and mechanism for adjusting the rear bolster along the rear axle comprising a gear wheel supported by bearings upon the middle portion of the rear bolster and engaging the rack upon the rear axle, substantially as set forth. 4th. In a machine for making and repairing roads, the body frame carrying a diagonally adjustable scraper blade and having its forward end supported by a wheeled axle, a rear vibratory bolster upon which the rear end of the body frame is supported, a long rear wheeled axle upon which the rear bolster is arranged to slide, mechanism for skewing the rear bolster comprising a gear having a socket for an operating key and power transmitting connections between said gear and the end portions of the rear bolster, and mechanism for adjusting the rear bolster along the rear axle comprising a gear having a socket for an operating key and engaging a rack upon the rear axle, substantially as described. 5th. In a machine for making and repairing roads, the body frame carrying a diagonally adjustable scraper blade, a rear bolster upon which the rear end of the body frame is pivotally held, a long rear axle upon which the rear bolster is arranged to slide, and mechanism for skewing the rear bolster, comprising a rock shaft having its ends connected with the ends of the rear bolster by crank and pitmen movements, and gearing for operating the rock shafts, substantially as set forth. 6th. In a machine for making and repairing roads, the body frame carrying a diagonally adjustable scraper blade, the rear bolster having its middle portion provided with upper and lower trunnions journaled in upper and lower bearings on the body frame, the lower one of said bearings being provided by a bent bar 20, and a long rear axle upon which the said bolster is arranged for sliding adjustment, substantially as set forth. 7th. In a machine for making and repairing roads, a vibratory rear bolster supporting and pivotally connected with the rear end of the body frame and supported to slide upon the rear axle, said bolster being constructed with middle and end bearing portions engaging upon the axle and rigidly connected together by bars 22, substantially as set forth. 8th. In a machine for making and repairing roads, a vibratory rear bolster supporting and pivotally connected with the

rear end of the body frame and in turn arranged for sliding adjustment upon the rear axle, a gear 16 journaled in a rear extension of the middle portion of the rear bolster and engaging a rack on the rear axle, the said middle portion of the rear bolster being recessed so as to expose the rack on the rear axle to the said gear, and being divided into upper and lower parts which are fastened together, substantially as set forth. 9th. In a machine for making and repairing roads, the body frame having its rear end supported upon a vibratory bolster which is in turn arranged to slide upon the rear axle having a rack, a gear engaging said rack, and a catch normally engaging the gear as a means for locking the bolster against sliding movement upon the axle, said catch being arranged to be engaged by and forced away from the rack by an implement applied to operate the gear, substantially as described.

No. 56,493. Rubber Soled Leather Shoe.
(*Semelle de caoutchouc pour chaussures.*)

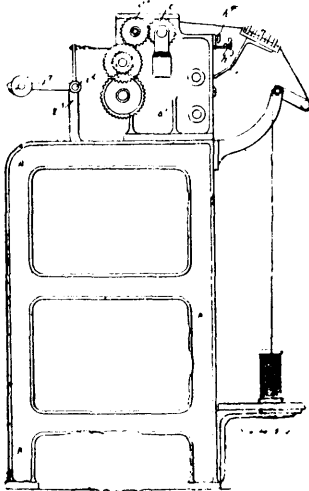


56 493

John Ernest Kennedy, Montreal, Quebec, Canada, 5th July, 1897; 6 years. (Filed 8th June, 1897.)

Claim.—1st. The combination, with an upper, and a plate of leather secured thereto, of a middle sole or welt of textile material and india-rubber secured to the said plate and upper, and a sole and heel or half sole and heel tap of india-rubber vulcanized onto the said middle sole or welt, substantially as set forth. 2nd. The combination, with an upper, and a plate of leather secured thereto, of a middle sole or welt of textile material and india-rubber, fastening devices such as stitches securing the said middle sole to the said upper and plate, and a sole and heel of india-rubber vulcanized onto the said middle sole, substantially as set forth.

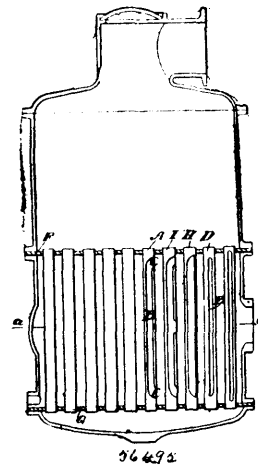
No. 56,494. Machine for Winding Thread, Yarn, etc.
(*Machine pour enrouler le fils, etc.*)



Bryce Muir Knox, Kilbirnie, Ayrshire, Scotland, 5th July, 1897; 6 years. (Filed 9th June, 1897.)

Claim.—1st. In machinery for winding thread, yarn, and the like, the combination comprising reciprocating frames *f*, rollers *f*^o, and operating canis *b*, *b*¹, substantially as set forth. 2nd. In machinery for winding thread, yarn, and the like, the combination comprising bell crank lever *i*, *i*¹, strap *j*, movable spindle *j*¹, and vertical arm *j*², substantially as set forth. 3rd. In machinery for winding thread, yarn, and the like, a cop *e* receiving a continuous motion of rotation from a spindle *d*, in combination with a reciprocating cross-head frame *f*, and cam *b*, *b*¹, substantially as set forth. 4th. In machinery for winding thread, yarn, and the like, the method of automatically regulating the tension on the thread, consisting in moving the rod *l* by automatic mechanism so that it shall move through a segment of a circle from the time the winding of the cop is started until fully wound, substantially as set forth. 5th. In machinery for winding thread, yarn, and the like, the combination comprising longitudinal rods *l*, *l*¹, worm gear *m*, *n*, hand lever *m*², portable pin *m*³, spindle *n*¹, ratchet-wheel *n*², pawl *n*, slotted lever links *o*², *p*, pin *p*², connecting rod *q*, stud *q*², and longitudinal rotating shaft *a*, substantially as set forth.

No. 56,495. Combined Tube or Vaporizing Element.
(*Appareil à chauffer et évaporer.*)

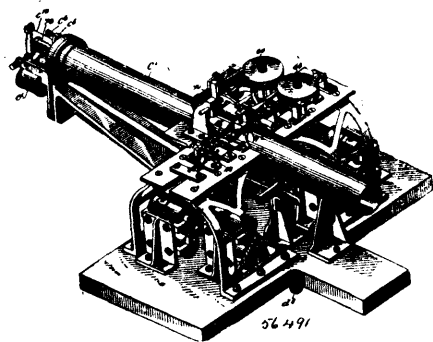


56 495

Victor Clement Joseph Ortman, Brussels, Belgium, 5th July, 1897; 6 years. (Filed 16th June, 1896.)

Claim.—1st. In a tubular heating and evaporating apparatus for liquids, the construction and the combination of tubes having several and concentric walls constructed in such a manner that the heating medium can circulate all around those several walls, due to the fact that the passage established for the said heating medium is formed in the lateral wall of each element, an opening constituting the extremities of the internal walls extending through nearly the whole length of each element as is described hereabove and shown in the annexed drawings and for the purpose specified. 2nd. In combination with a heating apparatus, the form of tubes consisting of a tube bathed in a heating medium and provided internally and concentrically to it with a second tube of which the extremities open out through the lateral wall immediately into the heating medium in such a way as to produce an extremely extended heating surface for the liquid which circulate in the tubes, as described above and shown in the annexed drawings and for the purpose specified. 3rd. In combination with heating apparatus, the type of tubular vaporizing element with walls forming a retreating passage in the periphery of the said tubes allowing a passage for the heating medium, as shown. 4th. In combination with a heating apparatus, the type of tubes consisting of a tube bathed in the heating medium and provided internally and concentrically to it with a second tube in the form of a canal having a single lateral opening throughout nearly its whole length, as shown in the annexed drawing and for the purpose specified.

No. 56,496. Printing Telegraph. (*Télégraphe imprimant.*)



56 496

The Western Union Telegraph Co., assignee of Charles L. Buckingham, both of New York, U.S.A., 5th July, 1897; 6 years. (Filed 21st July, 1896.)

Claim.—1st. In a type-by-type printer, a paper tube blank mounted on a suitable cylindrical support and provided with means engaging with the surface of the tube for turning it continuously in the same direction in the printing of lines, and also with a step-by-step axial feed device operated intermittently or at the end of each line of printing but normally out of connection with the paper surface, as and for the purpose described. 2nd. The step-by-step axial feed device for the paper tube having an actuating spring in which power is stored from the driving power of the machine during the printing of the line, and means for releasing the spring and bringing

the axial feed device into engagement with the paper at the completion of the line of printing. 3rd. The combination with the mechanism for rotating the paper tube circumferentially in the printing of a line, of means for automatically disengaging said feed mechanism from the paper at the end of the line during the operation of the axial feed mechanism. 4th. In a type-by-type printer, mechanism for automatically and simultaneously throwing the circumferential feed device and the axial feed device out of action or connection with the paper tube when a new tube is to be slipped into printing position upon the support, as and for the purpose described. 5th. The combination with the blank upon which the line is printed circumferentially, of the driving gear formed as described to have a lost motion at the end of the feed by which the margin on the printed page is covered and thereby allow time for the axial feed devices to work. 6th. The combination with the paper tube, of the paper feed wheel mounted on a suitable support and actuating devices for moving the wheel away from the paper in the latter part of the enlarged or amplified feed movement of rotation permitted by the escapement devices at the end of each line. 7th. The main driving shaft for the paper feed mechanism carrying an actuating arm for throwing the circumferential feed mechanism out of action at the end of each line, and also a cam or other device for operating the axial feed mechanism. 8th. The combination with the paper tube on which the lines are printed circumferentially, of the axial feed pad for engaging with the paper but normally out of contact therewith, said feed pad being mounted upon a spring actuated lever which is in turn carried by a support engaged by an actuating cam, as and for the purpose described. 9th. The combination with the paper tube and its feeding devices movable into and out of contact therewith, of means for positively stopping the paper tube just before or at the instant it is freed from the control of said feed devices. 10th. The combination with the tubular or endless blank fed circumferentially, of a suitable support therefor, a feed wheel exterior to the support, and a friction wheel mounted within the support and engaging with the inside of the paper tube opposite said feed wheel. 11th. In a type-by-type printer, a paper feed mechanism released to feed the paper step-by-step and provided with means for freeing it from its controlling device to allow it to rotate to zero, and means for simultaneously holding the paper feed devices away from position to engage with the paper. 12th. The combination with the escapement wheel for the paper feed mechanism, of a zero stop engaged by said wheel when it is freed from the escapement, as and for the purpose described. 13th. The automatically retracted zero stop for the paper feed escapement wheel, as and for the purpose described. 14th. The combination of the feed wheel feeding the paper circumferentially step-by-step and mounted on a movable support, of the release pin for disengaging the hook connected to said support when the latter has been operated by the driving power and thus allowing the feed wheel to return to engagement with the paper. 15th. The combination with the paper feed escapement, of the manual controller for freeing the escapement wheel, and a circuit controller simultaneously discharging the magnet which operates the escapement. 16th. The combination with the manual device for freeing the step-by-step paper feed mechanism and allowing it to rotate to zero position, of the automatic brake or similar retarding device connected with the manual device, as and for the purpose described. 17th. The combination with the manual device for freeing the paper feed escapement, of the circuit controller which throws out of action both the magnet which operates the feed escapement and the magnet which operates the press. 18th. In a type-by-type printer, the combination with the feed mechanism and its controlling escapement, of a continuously acting motor exerting a constant torque and connected with the escapement through a spring which is kept under a uniform tension by said motor. 19th. Impelling or adjusting devices having positive mechanical connection with the type-wheel for adjusting it to position for printing and each operated in both directions by an actuating magnet or magnets whose circuits are controlled by selecting relays, as and for the purpose described. 20th. A type-wheel set into position for printing by a series of adjusting devices some of which rotate said wheel while others move it axially, and a dogging device having an actuating magnet which is energized after each adjusting action and before the printing is effected. 21st. The combination with the type-wheel axially and circumferentially adjustable, of the conical dogging pin for holding the type-wheel in adjusted position as well as correcting any inaccuracy of position from defect in the action of the adjusting devices. 22nd. A dogging magnet controlled from a circuit of a distributor or circuit changer which governs the action of the adjusting devices by which the type-wheel is set to position. 23rd. In a type-by-type printer, a press magnet controlled from the circuit of the dogging magnet which fixes the type wheel in adjusted position, as and for the purpose described. 24th. The combination with the type-wheel, of its dogging magnet, a press magnet in a circuit controlled by said dogging magnet, and a magnet controlling the paper feed device and placed in a circuit governed by the press magnet. 25th. The combination with the type-wheel, its adjuster magnets and selecting relays governing the circuits of the adjuster magnets, of a restoring circuit for the relays controlled from the circuit which includes the dogging magnet. 26th. The combination, as described, with the type wheel adjusting magnet or magnets that are called into action toward the end of a cycle of changes produced by the sunflower or distributor, of an auxiliary assisting device such as a spring, as and for the purpose described. 27th. The combi-

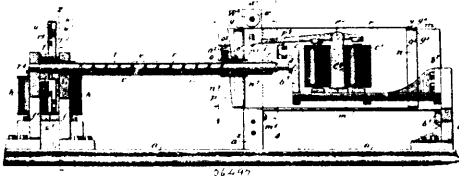
nation with a type-wheel and press pad, of a resilient cushion of some elastic material like rubber fed between the pad and paper. 28th. The press pad mounted on a bell-crank lever within the tube which supports the paper blank, and an operating magnet mounted outside the tube and having its armature connected with the bell-crank by a rod or link. 29th. The fixed paper supporting cylinder carrying a paper tube blank and supported from one end only, said cylinder being adapted to permit a tubular blank to be slipped endwise upon its free end and having a sufficient space at its supported end to permit a filled blank to be slid endwise away from position for printing in the operation of sliding a fresh blank into position. 29a. A type-wheel, and means for adjusting the same to any desired position for printing, consisting in two or more levers, substantially as described, and means for operating said levers singly or in combination to adjust said wheel to its various positions. 29b. In a printing telegraph, a movable typewheel which may be set to any desired position for printing, and means for rotating the same, consisting in a series of pivoted levers, and means for conveying the movement of said levers into a rotating action of said wheel, as and for the purpose set forth. 30th. A typewheel axially adjustable and connected as described to a double fulcrum lever or levers upon which adjuster magnets operate singly or in combination to adjust said wheel to different positions. 31st. An axially movable typewheel or platen made to move also transversely or circumferentially and connected with a double fulcrum lever or system of levers upon which two or more adjusting magnets operate as described, singly or in combination, to adjust said wheel by a positive action to the different required positions for printing from any character in a line of type. 31d. A distributor or sunflower device for closing in rapid succession a series of circuits, consisting of a series of circuit closers each having an actuating arm, and an actuating wheel moving step-by-step and operating on said circuit closers or controllers in succession to cause each to produce a complete change of electrical condition in its circuit from normal and back to normal on movement of the actuating wheel one step. 33rd. A sunflower or distributor containing a series of circuit closers and breakers, and an operating wheel acting on the same and having its successive actuating lugs or spaces differential to the spaces between the circuit closers and breakers so that all the latter shall be operated in a movement of the wheel equal to one of its own spaces. 34th. In a sunflower or distributor, circuit closers and breakers each consisting of a rock shaft having two arms one of which is a circuit closing arm adjustably fastened on the shaft so as to be capable of circumferential adjustment thereon, while the other is an actuating arm fastened to said shaft and engaged by an operating wheel. 35th. In a sunflower or distributor, the rock shafts having hubs or collars fastened thereon and each carrying two plate springs, one constituting a circuit closing arm and the other a retracting spring kept in tension by engagement with the stop through which electrical connection is maintained. 36th. The combination with the pair of armatures of opposite polarity respectively, and both connected to a vibrating escapement, of a pair of double wound magnet cores between whose ends the armatures vibrate, and means for causing a rapid succession of currents in the two windings of said cores in alternation. 37th. A sunflower or distributor operating step-by-step in response to a series of line pulses and provided with a unison device normally standing in position to arrest the sunflower at the termination of each series of pulses by which the sunflower is caused to make the complete cycle of changes in the local circuits or branches which it controls. 38th. The combination with the unison stop for the sunflower or distributor, of a double wound controlling magnet adapted to respond to a prolongation or modification in the rapid succession of currents flowing through its windings alternately. 39th. An electro-magnet controlling the unison stop for the distributor and placed in a circuit including the coils of the magnet by which the said distributor is caused to move step-by-step. 40th. In a printing telegraph in which each letter or character is transmitted by the same number of alternatively positive and negative impulses, a unison stop for the receiving apparatus adapted to bring the same to rest after each letter transmission, and a controlling polarized magnet therefor responsive to a modified controlling impulse at the termination of each series of impulses by which a letter or character is transmitted. 41st. A double wound controlling magnet S, governing the circuits of the selecting relays and having its windings included respectively in the circuits of the double wound unison magnet for the distributor to which the selecting relays are connected. 42nd. The distributor controlling the selecting relays, and having a branch which includes the dogging magnet for the type-wheel, and also includes a relay for the restoring circuit of the selecting relays. 43rd. In a printing telegraph, a press pad and an operating magnet or magnets for actuating said pad positively in both directions first to effect an impression, and then to withdraw the pad, as and for the purpose described. 44th. The combination with the several selecting relays which control the adjuster magnets, of a restoring circuit including said selecting relays and governed by a relay in a branch of the distributor or sunflower, as and for the purpose described.

No. 56,497. Printing Telegraph.

(*Télégraphe imprimant.*)

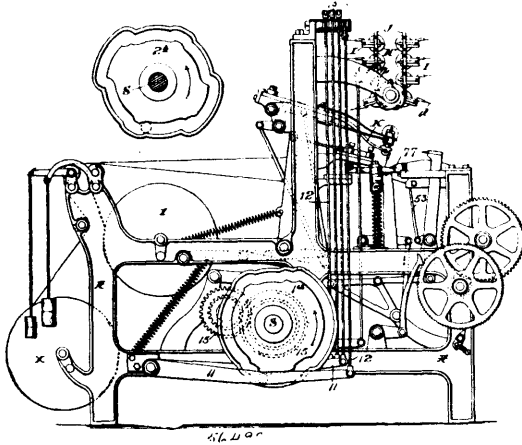
The Western Union Telegraph Co., assignee of Charles L. Buckingham, both of New York, U.S.A., 5th July, 1897; 6 years. (Filed 21st July, 1896.)

Claim.—1st. In a type printing apparatus, a blank formed as an endless band or tube in combination with means for moving the



blank step by step in the same direction, both for letter and word spaces, and by an enlarged single step across the space between the end of one line and the beginning of the next. 2nd. In a type printing machine, a blank returning upon itself to bring its edges together, in combination with means for feeding said blank in the direction of the letter space feed from the end of one line to the beginning of the next by a lengthened feed step. 3rd. In a type printing machine, a blank mounted in the machine as an endless band or tube upon which the lines are printed circumferentially or in the direction of travel of the band, in combination with step by step mechanism for moving the band or tube in the direction of the letter or word space feed, said mechanism having a long feed space or spaces for crossing the edge at the end of the line to the beginning of a new line by a longer step or steps. 4th. In a type printing machine, a paper or other blank mounted as a tube or endless band, in combination with means for feeding it in the same direction to print the lines around its circumference, as well as to cross the gap from edge to edge of the blank by a lengthened feed step in order to begin a new line, and means for feeding said blank axially to cover the space between lines. 5th. In a type printing machine, a paper blank formed as a tube or endless band, and a feeding mechanism rotating said blank adjusted to move by an enlarged or amplified step or steps at the end of a line. 6th. The combination with the blank, feeding always in the same direction both for letter or word spaces and for the space from the end of one line to the beginning of the next, of a feed mechanism moving the blank in the direction of letter and word spaces having an enlarged or amplified feed space adjusted, as described, to come into operation at the end of each line. 7th. In a type-by-type printer, the combination with a blank mounted to feed as an endless band or tube and with an edge forming a spiral or a diagonal to the line of feed as described, of a feeding mechanism operating always in the same direction and adjusted as described to feed said blank or tube more or less than a complete rotation for each complete rotation of the feed controlling wheel. 8th. In a type-by-type printer, a blank consisting of a tube adapted to rotate upon a stationary support, and a frictional feeding device engaging directly with the surface of the paper for feeding the same step by step. 9th. In a type-by-type printer, the combination, substantially as described, of a tubular blank, a supporting cylinder within the same, and a frictional feed wheel engaging with the surface of the paper tube for rotating the same upon the cylinder. 10th. In a type-by-type printer, the combination with the paper tube and the frictional feed wheel for rotating said tube step by step, of means for giving said wheel a movement of translation bodily parallel to the axis of the tube. 11th. In a type-by-type printer, the combination with a blank formed as a tube or endless band, a fixed support therefor, means for rotating the tube step by step upon its support and continuously in the same direction, as described, and means for giving said blank a movement of translation in the direction of its axis of rotation to produce the vertical space between lines. 12th. In a type-by-type printer, the combination with the blank formed as a tube or endless band, of a continuously rotating feed shaft or wheel connected with said tube, a step by step escapement wheel carried by said shaft, and a screw shaft with which a pin or lug rotating with the tube engages, as and for the purpose described. 13th. In a type-by-type printer, the combination of a paper feed wheel, a longitudinally slotted shaft supporting the same and connected with an escapement wheel, and a screw shaft with which a pin carried by the wheel engages through the slot. 14th. In a type-by-type printer, the combination with a paper feed wheel, of a screw shaft, a hollow longitudinally slotted shaft surrounding the same, and a spring actuated shaft pin connected with the wheel and engaging the screw thread, as and for the purpose described. 15th. In a type-by-type printer, the combination, substantially as described, of a paper feed wheel, a longitudinally slotted spindle on which said wheel slides axially, and a screw shaft with the thread of which the wheel is connected through the slot, as and for the purpose described. 16th. In a type printing machine, the combination, substantially as described, with a paper feed, of a forked lever, *a*, embracing an anchor escapement wheel, and a pivoted detent pallet mounted on one arm of said lever and provided with a spring *b* moving the toe of the pallet backward to meet an advancing tooth when the said pallet is moved radially away from engagement with the wheel. 17th. The combination, substantially as described, with the paper feed in a type printing machine, of two toothed wheels, *r*², *r*³, and an anchor escapement, one of whose pallets is yieldingly, as described, the two pallets thereof engaging respectively with said wheels. 18th. The combination, substantially as described, with an anchor escapement having

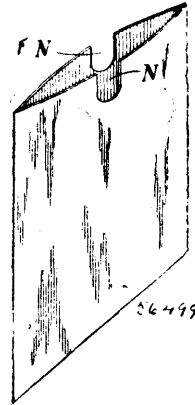
a yielding pallet, of two toothed wheels engaged respectively by the pallets, and one provided with a blank space, as and for the purpose described. 19th. The combination, substantially as described, of two toothed wheels and an escapement lever having two pallets engaging respectively with said wheels, one of said pallets being pivoted as described and provided with a spring and top, said spring being applied to move the toe of the pallet in a direction to meet the rotation of the wheel. 20th. The combination with a type printer, of two toothed wheels connected with the feeding mechanism, one of said wheels having a blank space and an escapement lever, the pallets of which engage respectively with said wheels, as and for the purpose described. 21st. In a printing telegraph, the combination of a type-wheel, a press pad operated positively in both directions by an electro-magnet or magnets, and means at the receiving stations for energizing the said magnet or magnets in alternation first to effect an impression and then to withdraw the pad immediately and independently of the condition of the line circuit. 22nd. In a printing telegraph, the combination with the press mechanism, of two operating magnets, one acting to produce the impression, the other to restore the press to normal position, and means at the receiving station for energizing said magnets alternately. 23rd. The combination with the type-wheel of a press pad, an armature lever carrying the same, two electro-magnets acting on said lever at opposite sides of its fulcrum, respectively, and a circuit controller for throwing said magnets into circuit alternately one as soon as the type-wheel is set to position for printing and the other immediately thereafter to throw off the pad. 24th. The combination with a type-wheel having two or more rings of type and capable of an axial movement as well as a movement of rotation, of one or more drivers and followers arranged in line with the axis of said wheel, said followers being capable of rotation in a plane parallel to the plane of rotation of the type-wheel, and means for converting the rotation of the final follower directly into an end thrust to produce an axial movement of the type-wheel. 25th. The combination with a type-wheel having two or more rings of type, of means for moving said type-wheel axially consisting of two or more axially movable drivers mounted in line with the type-wheel axis, and two or more corresponding rotating followers rotating parallel with the type-wheel, the final follower being connected directly with an axial extension of the type-wheel shaft incapable of rotation but adapted to move axially. 26th. The combination of a type-wheel having three or more rings of type, of two series of rotating drivers and followers all arranged axially in line with the said wheel, and one of said series being provided with means for imparting a movement of rotation to the type-wheel while the other series is provided with means for imparting an axial movement to said wheel, as and for the purpose described. 27th. The combination with the selecting relays and a sunflower or distributor for closing connection to said relays in succession, of a differentially wound controlling magnet governing the circuit through the sunflower, and a main relay having front and back contacts connected respectively to the different coils. 28th. The combination with the selecting relays, of a differential magnet controlling the circuit thereof, and means for alternately closing the circuit of the differential coils by the main line pulsations. 29th. The combination, substantially as described, with the selecting relays and the type-wheel impelling device controlled thereby, of a differential magnet governing the circuits of said selecting relays, said controlling magnet being adapted, as described, to respond to a prolongation or modification in a rapid succession of currents flowing through its coils alternately. 30th. The combination, substantially as described, of a type-wheel adjusted to its various positions for printing by a series of impelling devices acting singly or in various combinations, a press apparatus brought into operation automatically on the completion of each cycle of actions in the type-wheel adjusting apparatus, a power driven feed mechanism, an electro-magnet for releasing the same, and means for controlling said magnet to release said feed mechanism on the reverse movement of the press apparatus after each impression. 31st. The combination, substantially as described, in a type-by-type printer, of a tubular blank and a step-by-step feed therefor, a sunflower or distributor governing the position of the type-wheel, a press apparatus controlled by said sunflower, and means for releasing the feed devices on reverse movement of the press after each impression. 32nd. The combination, substantially as described, in a type-by-type printer, of a paper feed mechanism, a wheel of which has an enlarged or amplified feed space as described, a driving power therefor, a step-by-step feed adjusted to release the paper mechanism on movement in one direction only, an electro-magnet controlling said step-by-step devices, and a press governing the circuit of said electro-magnet by a back contact. 33rd. In a type-by-type printer, a blank formed as an endless band or tube in combination with a stationary support therefor and paper feed devices engaging directly with the surface of the paper for rotating the blank continuously in the same direction in the printing of lines and for moving it axially to cover the space between lines. 34th. The combination, substantially as described, of the paper feed devices and escapement mechanism acting to release the paper feed on movement in one direction only, an electro-magnet controlling the same, a press governing the circuit of said magnet, a sunflower or distributor for the type-wheel adjusting apparatus, and means for changing the circuit of the press magnet once for each cycle of changes produced by the sunflower or distributor.

No. 56,498. Moquette Fabrics and Moquette Looms.*(Tissus et métiers.)*

Warren Baldwin Smith, assignee of Eugene Tymeson, both of Yonkers, New York, U.S.A., 5th July, 1897; 6 years. (Filed 15th October, 1896.)

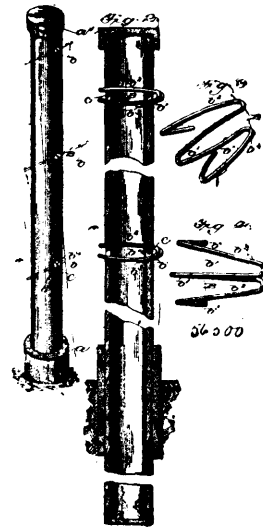
Claim.—1st. A moquette fabric having a tuft holding weft and a plurality of tuft binding or body wefts to each row of tufts within a single shed of some of the warps and with the binding or body wefts separated from each other and from the tuft holding weft by other warps, substantially as described. 2nd. A moquette fabric having the warps arranged in sets of binding and dividing warps, and having a tuft holding weft and a plurality of tuft binding or body wefts to each row of tufts within a single shed of the binding warps and with the binding or body wefts separated from each other and from the tuft holding weft by the dividing warps, substantially as described. 3rd. A moquette fabric having the warps arranged in sets of binding and dividing warps, and having a tuft holding weft and a plurality of tuft binding or body wefts to each row of tufts within a single shed of the binding warps and within the binding or body wefts separated from each other and from the tuft holding weft by the dividing warps, said dividing warps running straight through the fabric so as to lie between corresponding wefts for the successive rows of the tufts, substantially as described. 4th. A moquette fabric having binding and dividing warps and having a row of tufts for each three wefts, and having the three wefts for each row of tufts within a single shed of the binding warps and consisting of a tuft holding and two tufts binding or body wefts with the binding or body wefts separated from each other and from the tuft holding weft by dividing warps, substantially as described. 5th. In a loom for weaving moquette fabrics, the combination with means for inserting the tufts, a weft carrier, and warp heddles, of means for actuating the weft carrier and heddles to insert a tuft holding weft and a plurality of tuft binding or body wefts to each row of tufts and to shift the warps to form a single shed of some of the warps enclosing all of the said wefts and to separate each of said wefts from the other wefts by other warps, substantially as described. 6th. In a loom for weaving moquette fabrics, the combination with means for inserting the tufts, a weft carrier, and binding and dividing warp heddles, of means for actuating the weft carrier and heddles to insert a tuft holding weft and two tuft binding or body wefts to each row of tufts and to shift the binding warps to form a single shed enclosing all of said wefts and to shift the dividing warps to separate each of said wefts from the other wefts, substantially as described. 7th. In a loom for weaving moquette fabrics, the combination with means for inserting the tufts, a weft carrier, lay, comb, and warp heddles, of means for actuating the weft carrier and heddles to insert a tuft holding weft and a plurality of tuft binding or body wefts to each row of tufts and to shift the warps to form a single shed of some of the warps enclosing all of said wefts and to separate each of said wefts from the other wefts by other warps, and means for operating the lay and comb to hold the comb against the successive rows of tufts during the insertion and beating up of one or more binding or body wefts, and to beat up one or more binding or body wefts against the comb, substantially as described. 8th. In a loom for weaving moquette fabrics, the combination with means for inserting the tufts, a weft carrier, lay, comb, and binding and dividing warp heddles, of means for actuating the weft carrier and heddles to insert a tuft holding weft and two tuft binding or body wefts to each row of tufts, and to shift the binding warps to form a single shed enclosing all of said wefts and to shift the dividing warps to separate each of said wefts from the other wefts, and means for operating the lay and comb to hold the comb against the successive rows of tufts during the insertion and beating up of two binding or body wefts, and to beat up each of said two binding or body wefts against the comb, substantially as described. 9th. In a loom for weaving moquette fabrics, the combination with the lay, comb, weft carrier

heddles and means for inserting the tufts, of means for actuating the heddles and weft carrier, and means for actuating the lay and comb to hold the comb against the successive rows of tufts during the insertion and beating up of one or more tuft binding or body wefts, and to beat up one or more tuft binding or body wefts against the comb, substantially as described. 10th. In a loom for weaving moquette fabrics, the combination with the lay, comb, weft carrier, heddles, and means for inserting the tufts, of means for actuating the heddles and weft carrier to insert a tuft holding weft and two tuft binding or body wefts to each row of tufts, and means for actuating the lay and comb to hold the comb against the successive rows of tufts during the insertion and beating up of one or more tuft binding or body wefts, and to beat up one or more tuft binding or body wefts against the comb, substantially as described.

No. 56,499. Paper Bag. (Sac en papier.)

Robert Jack, Rutherglen, Victoria, 5th July, 1897; 6 years. (Filed 12th January, 1897.)

Claim.—A paper bag having the sides at its mouth provided with notches or tags so arranged as to admit of the finger and thumb of the two hands to take hold of the opposite sides and pull them apart, substantially as described.

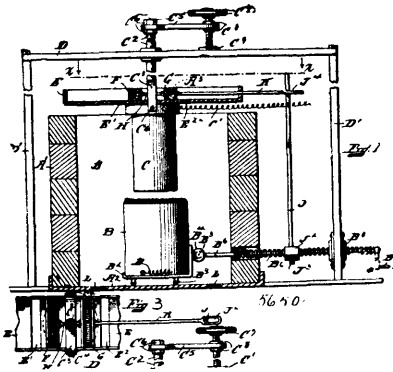
No. 56,500. Fence Post. (Poteau de clôture.)

Austin W. Smith, Natchez, Mississippi, U.S.A., 5th July, 1897; 6 years. (Filed 13th January, 1897.)

Claim.—1st. The combination with a fence post having a series of opposite coincident slots therein, of a series of wire clamps fitting in said slots and having spring arms engaging the side thereof, said clamps being adapted to support the fence wires, substantially as set forth. 2nd. The combination with a fence post having a lower cylindrical jacket or base, and a series of opposite coincident slots, of a series of wire clamps fitting in said slots, and having spring arms bearing against the sides thereof, and hooks formed on the ends of said spring arms and adapted to engage and support the

fence wires, substantially as set forth. 3rd. The combination with a fence post having a series of opposite coincident slots therein, of a series of wire clamps having a central bowed portion, and diverging spring arms engaging the sides of said slots, said clamps being adapted to support the fence wires, substantially as set forth. 4th. The combination with a fence post having a series of opposite coincident slots therein, of a series of wire clamps having central bowed portions, and diverging spring arms bearing against the sides of said slots, and provided with hook ends adapted to engage the fence wires, substantially as set forth. 5th. The herein described clamp for fence wires, composed of a single piece of spring wire having a central bowed or looped portion, and diverging arms extending from said central portion, and having their ends bent in opposite directions to form hooks, substantially as and for the purpose set forth.

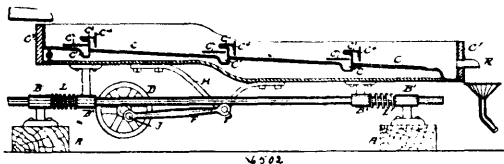
No. 56,501. Electric Furnace. (*Fourneau électrique.*)



John Joyce, Andover, and James A. Deuther, Boston, both in Mass., U.S.A., 5th July, 1897; 6 years. (Filed 19th January, 1897.)

Claim.—1st. In an electric arc furnace, an upper electrode, a lower electrode, mechanism for moving said lower electrode from its normal position to expose the same to receive the material to be treated, mechanism for returning said lower electrode to its normal position, and a feed mechanism for feeding the material to be treated onto said lower electrode during the interval between the movements of the lower electrode from and to its normal position. 2nd. In an electric arc furnace, an upper electrode, a lower electrode, mechanism for moving said lower electrode from its normal position to expose the same to receive the material to be treated, and a feed mechanism operated by the said movement of said lower electrode for feeding the material to be treated onto said lower electrode. 3rd. In an electric arc furnace, an upper electrode, a lower electrode, mechanism for moving said lower electrode from its normal position to expose the same to receive the material to be treated, and an intermittent feed mechanism connected to the upper electrode and adapted to be operated by the said movement of the lower electrode to intermittently feed the material to be treated onto said lower electrode. 4th. In an electric arc furnace, an upper electrode, a lower electrode, mechanism for varying the distance between said electrodes, mechanism for moving said lower electrode from its normal position to expose the same to receive the material to be treated, and a feed mechanism connected to said upper electrode and adapted to be operated by the movement of the said lower electrode to intermittently feed the material to be treated onto said lower electrode.

No. 56,502. Combined Reciprocating Concentrator and Amalgamator. (*Machine à concentrer et amalgamer.*)



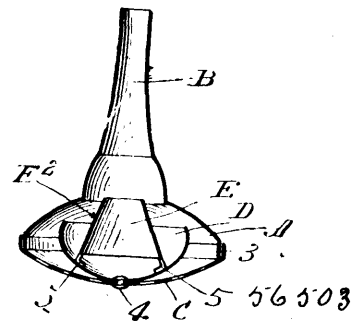
The Taylor Gold Recovery Co., assignee of Robert Taylor, both of Adelaide, South Australia, 5th July, 1897; 6 years. (Filed 22nd January, 1897.)

Claim.—1st. In an improved combined reciprocating concentrating and amalgamating machine, a table frame C⁵, mounted upon and in combination with the horizontal slide rods B, the said table frame being provided with trays or tables C, substantially as described. 2nd. In an improved combined reciprocating concentrating and amalgamating machine as hereinbefore described, the above claimed parts in combination with connecting rods F, and means whereby the same are caused to impart a horizontal reciprocating

motion to the table frame. 3rd. In an improved combined reciprocating concentrating and amalgamating machine as herein described, a gauze wire screen or screens C², arranged above and in combination with a mercury well or mercury wells C¹, as and for the purposes set forth. 4th. In an improved combined reciprocating concentrating and amalgamating machine, a stepped riffle plate C³, and an adjustable splash board in combination therewith, substantially as described. 5th. In an improved combined reciprocating concentrating and amalgamating machine, a choke rod M, in combination with a lever and rod M¹ and M², and the eccentric K², as and for the purposes set forth. 6th. The herein specified combined reciprocating concentrating and amalgamating machine, substantially as described.

No. 56,503. Vocalizing Audiphone.

(*Audiphone vocalisateur.*)

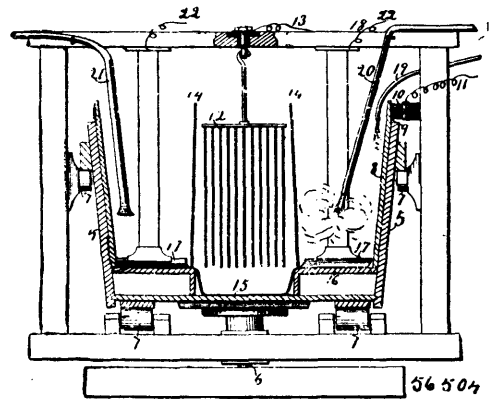


James Alfred Lakin, Westfield, Mass., U.S.A., 5th July, 1897; 6 years. (Filed 8th February, 1897.)

Claim.—1st. A vocalizing audiphone comprising a hollow case having an ear-tube extending from one side and a perforated cover applied to the opposite side thereof, combined with a dome of resonant material secured by its apex to the inner side of said cover, and a hollow cone-shaped sound-receiver connected by one end to the inner surface of said dome, but mainly separated therefrom, substantially as set forth. 2nd. A vocalizing audiphone comprising a hollow case having an ear-tube extending from one side and a perforated cover applied to the opposite side thereof, combined with a dome of resonant material attached by its apex, only, to the inner side of said cover, whereby the body thereof is free for resonant action, and a hollow cone-shaped sound-receiver of resonant material connected by one end to the inner surface of said dome, but mainly separated therefrom, substantially as set forth. 3rd. A vocalizing audiphone comprising a hollow case having an ear-tube extending from one side and a perforated cover applied to the opposite side thereof, combined with a dome of resonant material secured by its apex to the inner side of said cover, substantially as set forth.

No. 56,504. Ore Reducing Electrical Machine.

(*Machine électrique à réduire le minerai.*)

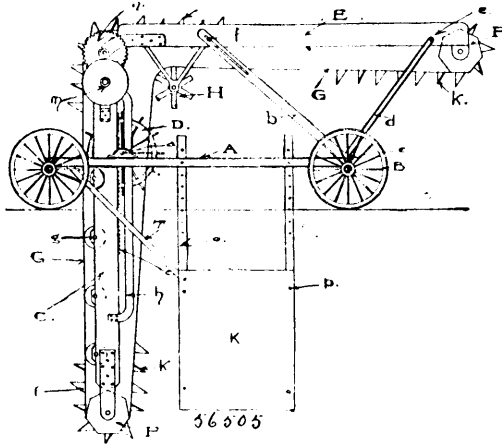


Charles P. Tatrow, Seattle, Washington, U.S.A., 6th July, 1897; 6 years. (Filed 10th February, 1897.)

Claim.—1st. In an ore reducing machine, a tub mounted for horizontal rotation, a lining in the form of a ring, of electric conducting material within the tub, a conductor for electricity to connect the said lining with the positive pole of a generator, a group of plates forming a cathode, electrically connected with the negative pole of the said generator and stationarily suspended in the centre of the tub, and a screen of perforated sheet metal located around the cathode, substantially as described. 2nd. In an ore reducing machine, a tub mounted for horizontal rotation, a lining in the form

of a ring, of electric conducting material for the tub, an electrical conductor to communicate between said lining and the positive pole of a generator, a group of plates forming a cathode connected with the negative pole of the said generator and stationarily suspended in the centre of the tub, a perforated screen around the cathode, a pan removably located below the cathode, an elevated false bottom around the pan, scrapers or ploughs located above the said bottom and inclined towards centre, relatively to the direction of the tub's motion, inlet and outlet pipes and a steam pipe opening into the tub, substantially as described. 3rd. In an ore reducing machine, a tub mounted for horizontal rotation, a group of cathode plates hung stationarily in the tub and electrically connected with the negative pole of a generator, a perforated screen around the cathode, and one or more anodes within the tub and outside of said screen, and electrically connected with the positive pole of the said battery, substantially as described.

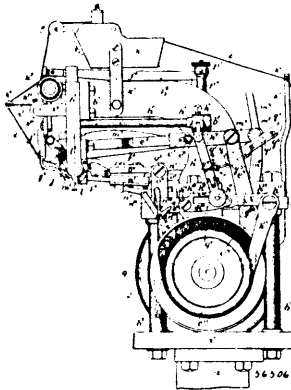
No. 56,505. Machine for Digging and Refilling Sewers. (*Machine pour creuser et remplir les égouts.*)



Edmund Abner Cawsey, Stratford, Ontario, Canada, 6th July, 1897; 6 years. (Filed 22nd March, 1897.)

Claim.—1st. In a sewer trench excavator, the combination of buckets and picks on an endless flexible belt carried and guided on and by the leg *c* and trough *C*, as shown and described for the purpose set forth. 2nd. The combination of steel sharing-plates attached to a carriage and propelled by a motor.

No. 56,506. Sewing Machine for Lasting Boots and Shoes. (*Machine à coudre pour chaussures.*)



James Edward Jackson, Lynn, Mass., 6th July, 1897; 6 years. (Filed 17th April, 1897.)

Claim.—1st. A sewing machine for lasting boots and shoes, provided with grippers for the insole and pinchers for the upper, combined with means for causing the grippers and the pinchers to intermittently release the work, and means for feeding the said work when it is released as aforesaid, substantially for the purposes set forth. 2nd. In a sewing machine for lasting boots and shoes,

the combination with the sewing mechanism, of a pincher for the upper, a gripper positively gripping and holding the insole to resist the thrust of the pincher, means for causing the pincher to intermittently release the upper, and an automatic feeding mechanism for feeding the work when the upper is released by the pincher. 3rd. In a sewing machine for lasting boots and shoes, the combination with a pincher for drawing the upper taut over the last and holding it in a taut condition, grippers for positively gripping the insole to resist the thrust of the pincher, and a needle, of means for causing the pincher to release the upper, and means for moving the needle and the work laterally when the upper is released. 4th. In a sewing machine for lasting boots, the combination with the needle of an intermittently acting gripper having two jaws for the insole, and an intermittently acting pincher for the upper. 5th. In a sewing machine for lasting boots and shoes, the combination, with gripper jaws for the insole, a pincher for the upper, an awl and a needle, of means for causing the pincher and gripping jaws to grasp the work when the awl penetrates the latter and for causing them to release the work when the needle has penetrated it, and means for moving the needle laterally, and for the purpose set forth. 6th. In a sewing machine for lasting boots and shoes, the combination with the gripper for a tape or similar device on an insole, a pincher for the upper, and stitching mechanism for sewing the upper to the tape, of an awl, and means for causing the gripper to release the tape intermittently, for the purpose set forth. 7th. In a sewing machine for lasting boots and shoe, the combination with the stitching mechanism, of a pincher for the upper having two jaws, and means for moving the pincher bodily to carry the edge of the upper toward the stitching mechanism, said pincher having one jaw movable independently of the other jaw. 8th. In a sewing machine for lasting boots and shoes, the combination with the stitching mechanism, of pinchers for the upper, consisting of two pivoted levers, each having a jaw on the end, one of said jaws being movable relatively to its lever, for the purpose set forth. 9th. In a sewing machine for lasting boots and shoes, the combination with the stitching mechanism, of a pincher for the upper, consisting of two pivoted levers, each provided with a jaw, one of said jaws being movable relatively to its supporting lever, means for swinging said levers on their pivots, and means for moving said movable jaw relatively to its lever, for the purpose set forth. 10th. In a sewing machine for lasting boots and shoes, the combination with suitable stitching mechanism, of an abutment, and an automatically operated pincher constructed to grasp the upper with a yielding pressure. 11th. In a sewing machine for lasting boots and shoes, the combination with suitable stitching mechanism, of an abutment for the insole, and a pincher gripping the upper with a yielding pressure and means for automatically and yieldingly operating said pincher to stretch the upper over the last. 12th. In a sewing machine for lasting boots and shoes, the combination with suitable stitching mechanism, of an abutment for the insole, an automatic pincher for the upper, said pincher having two levers each with a jaw on the end, means for yieldingly clamping one jaw against the other jaw, and means for moving said jaws bodily. 13th. In a sewing machine for lasting boots and shoes, the combination with suitable stitching mechanism, of an automatically operated pincher for the upper and manually operatable means for releasing the work from the jaws of the said pincher. 14th. In a sewing machine for lasting boots and shoes, the combination with suitable stitching mechanism, of an automatically operated pincher for the upper, and manually operatable means for moving one jaw of the pincher relatively to the other jaw thereof to release the work. 15th. In a sewing machine for lasting boots and shoes, the combination with suitable stitching mechanism, of an automatically operated pincher for the upper, automatic power devices for clamping the jaws of the pincher together, and manually operatable means inserted in said devices for releasing the work from said jaws. 17th. In a sewing machine for lasting boots and shoes, the combination with suitable stitching mechanism, of an automatically operated pincher for the upper, and means for controlling the movements of said pincher. 18th. In a sewing machine for lasting boots and shoes, the combination with suitable stitching mechanism, of an oscillatory pincher, automatically operating devices for moving said pincher, and manually operatable means for limiting the movements of said pincher. 19th. In a sewing machine for lasting boots and shoes, the combination with suitable stitching mechanism, of an oscillatory pincher, automatically operating devices for moving said pincher, a hand lever having a stop for limiting the movements of said pincher, and means for holding said hand lever at any desired adjustment. 21st. In a sewing machine for lasting boots and shoes, the combination with suitable stitching mechanism, of a gripper for the insole, automatically acting devices for clamping the jaws of said gripper together, and manually operatable means for releasing the work when said jaws are clamped. 22nd. In a sewing machine for lasting boots and shoes, the combination with suitable stitching mechanism, of a gripper for the insole, automatically acting devices for clamping the

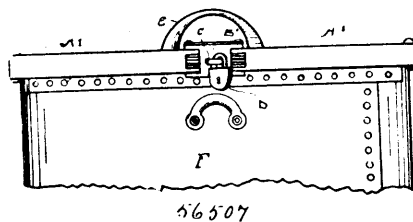
jaws of said gripper together, and a hand lever for separating said jaws to release the work when the jaws are clamped together. 23rd. In a sewing machine, for lasting boots and shoes, the combination with the stitching mechanism, and a pincher for the upper, of means for feeding the work laterally, and a knife movable independently of the pinchers. 24th. In a sewing machine for lasting boots and shoes, the combination with the stitching mechanism, and a pincher for the upper, of means for feeding the work laterally, a movable knife, and means independent of the pincher for moving the knife to engage and cut the upper. 25th. In a sewing machine for lasting boots and shoes, the combination with a stitch-forming mechanism, and a pincher for the upper, of a knife movable relatively to said pincher to cut the edge of the upper, and means for moving said knife when the pincher has engaged the upper. 26th. In a sewing machine for lasting boots and shoes, the combination with a stitch-forming mechanism, of a movable knife, and means movable independently of said knife for drawing the upper taut over the last prior to the movement of the knife. 27th. In a sewing machine for lasting boots and shoes, the combination with a stitch-forming mechanism, and a gripper for the insole, of a movable knife, and means for moving said knife to engage and cut the upper. 28th. In a sewing machine for lasting boots and shoes, in combination, a stitching mechanism, an automatically movable knife for slashing the edges of the upper, and means for throwing said knife into and out of action while the stitching mechanism is operating. 29th. In a sewing machine for lasting boots and shoes, in combination, a stitching mechanism, an automatically movable knife for slashing the edges of the upper, and means under the control of the operator for throwing said knife into and out of operation at will while the stitching mechanism is operating. 30th. In a sewing machine for lasting boots and shoes, in combination, a stitching mechanism, an automatically movable knife for slashing the edges of the upper, power devices for operating said knife, and means under the control of the operator for disconnecting the power devices from the knife. 31st. In a sewing machine for lasting boots and shoes, in combination, a stitching mechanism, an automatically movable knife for slashing the edges of the upper, an automatically acting pincher for the upper relatively to which the knife moves, and an adjustable slide upon which the pincher and the knife are supported. 32nd. In a sewing machine for lasting boots and shoes, in combination, a needle, an oscillatory needle carrier, means for laterally vibrating said needle carrier, and a needle strengthener relatively to which said needle is movable, and which acts to brace the needle in its lateral movements. 33rd. In a sewing machine for lasting boots and shoes, in combination, a needle, means for oscillating said needle, a looper, and means for positively moving said looper entirely around the needle. 34th. In a sewing machine for lasting boots and shoes, in combination, a needle, means for oscillating said needle, a looper, means for positively moving said looper vertically, and means for positively moving said looper laterally, whereby it is moved positively entirely around the needle. 35th. In a sewing machine for lasting boots and shoes, in combination, a needle, means for oscillating said needle, a looper, a pivoted bar to which the looper is secured, means for reciprocating said bar longitudinally, and means for oscillating said bar about its pivot. 36th. In a sewing machine for lasting boots and shoes, in combination, a needle, means for oscillating said needle, a looper, a pivoted bar to which the looper is secured a lever for reciprocating said bar longitudinally, and a rock-shaft for oscillating said bar about its pivot. 37th. In a sewing machine for lasting boots and shoes, a needle carrier, a needle, means actuated from the power shaft for oscillating said needle carrier, and means actuated from the power shaft for laterally vibrating said needle carrier. 38th. In a sewing machine for lasting boots and shoes, a needle carrier, a needle, a stationary sleeve mounted on a portion of the frame of the machine, and on which the needle carrier is pivoted, means for oscillating said needle carrier, and a longitudinally movable bar mounted in said sleeve for vibrating said needle carrier laterally. 39th. In a sewing machine for lasting boots and shoes, in combination, a needle, a pincher for the upper, means for moving one of said parts laterally while the other is stationary to feed the work, and means for varying the movement of said part. 40th. In a sewing machine for lasting boots and shoes, in combination, a needle, means for clamping the work, means for moving the needle laterally to feed the work, and means for varying the lateral movement of said needle.

No. 56,507. Mail Pouch or Bag. (Malle.)

Homer L. Boyie, Kalamazoo, Michigan, U.S.A., 6th July, 1897; 6 years. (Filed 21st April, 1897.)

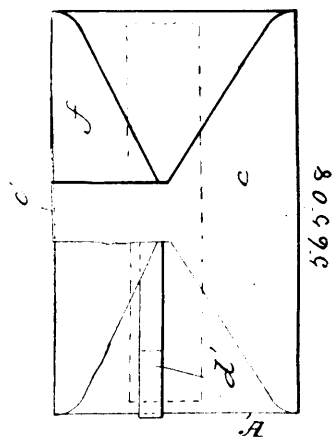
Claim.—1st. A sectional flexible mouthpiece or closure for mail bags and the like, the sections of which are pivotally connected together end to end and adapted when spread apart to form an opening of large area, the sections upon one side of the mouth of the bag being adapted to close into the opposing sections so as to arrange themselves in the same longitudinal plane therewith, with the pivots of the intermediate section upon one side in the same vertical plane with the pivots of the intermediate plate of the opposing sections, whereby the closure may flex or yield at the joints toward either the right or left, and may be compactly folded in either direction, substantially as described. 2nd. A flexible mouthpiece or closure for mail bags and the like, comprising for each side of the mouthpiece

three pivotally connected plates or sections, those upon one side being adapted to fit into the opposing sections so as to be arranged



in the same longitudinal plane with the pivots connecting the intermediate and end sections in the same vertical plane, whereby the closure may flex or yield at the joints both right and left and may be compactly folded in either direction, substantially as described. 3rd. A mouthpiece or closure for mail bags and the like, comprising for each side of the bag three pivotally-connected plates or sections, two of which are longer than the intermediate section to which they are pivoted at their inner ends, the outer ends of the longer sections being pivoted to the outer ends of corresponding opposing sections and the intermediate shorter sections being arranged diametrically opposite each other; the pivots uniting the longer and shorter sections upon one side being so arranged that when the mouthpiece is closed the pivots of both intermediate sections will be coincident with each other at the joints to permit the closure to flex either to the right or to the left and to be compactly folded in either direction, substantially as described. 4th. A mouthpiece or closure for mail-bags comprising, for each side of the bag, a pair of channelled or U-shaped plates pivotally connected at their inner ends to a short similar sections and having their outer ends pivoted to the outer ends of the longer plates of similar opposing sections, the plates upon one side being larger than those upon the other and arranged so that when closed the smaller plates may fit snugly within the concavities of the larger ones, with the pivots of the intermediate smaller plate fitting between the pivots of the larger intermediate plate and coincident therewith, substantially as described. 5th. A mouthpiece or closure for mail bags and the like, comprising for each side of the bag, a series of pivotally-connected plates or sections having pendent flanges to which the upper edges of the mail-bag or pouch may be secured; said plates being adapted when closed to fit one into the other so that the contiguous edges of the mail sack may be brought in close contact between the flanges of opposing plates; the pivots of the intermediate section upon one side of the sack being coincident with the pivots of the corresponding opposing sections when closed, so as to permit flexure in opposite directions, substantially as described.

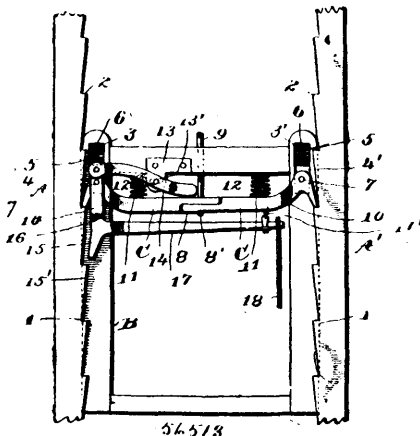
No. 56,508. Envelope. (Enveloppe.)



James Boutilier and Daniel Gillis, both of Little Glace Bay, Nova Scotia, Canada, 6th July, 1897; 6 years. (Filed 23rd April, 1897.)

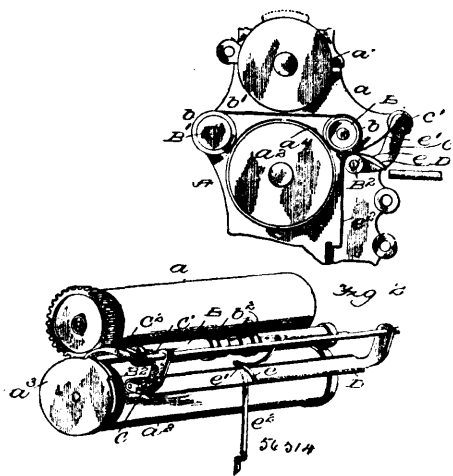
Claim.—An envelope provided with a straight band projecting from one of its side flaps and a T-shaped band projecting from its upper flap, substantially as set forth.

over the buffer blocks, safety catches pivotally mounted on the buffer blocks, and adapted to engage the racks and having their



inner ends lapped, springs to throw the catches into engagement and a cable link arranged over the lapped ends of the catches. 2nd. In an elevator, a safety catch device comprising a carriage frame, oppositely disposed guides for the carriage formed with racks, buffer blocks housed in the frame of the carriage, springs over the buffer blocks, safety catches pivotally mounted on the buffer blocks, and adapted to engage the racks and having their inner ends lapped, springs to throw the catches into engagement and a cable link arranged over the lapped ends of the catches, an auxiliary lever fulcrumed to its outer end connected to one of the buffer blocks, and a catch, having an actuating handle, pivotally suspended from the outer end of the auxiliary lever. 3rd. In an elevator, the combination with the guides having racks, main safety catches or levers, of an auxiliary safety device, comprising a lever fulcrumed to the carriage frame with one end arranged to bear on the arms of the safety catches and a catch arm pivotally suspended from the outer end of the said lever and having a catch portion adapted to engage one of the said racks, and a handle on the catch arm, substantially as set forth.

No. 56,514. Printing Press. (Presse à imprimer.)



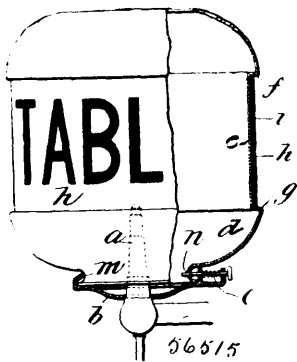
Charles G. Harris, Niles, Ohio, U.S.A., 7th July, 1897; 6 years. (Filed 22nd March, 1897.)

Claim.—1st. A printing press, comprising a rotary cylinder provided with stops on its periphery, and means for feeding paper on said cylinder against said stops while the same is in motion, said paper being fed at a speed greater than that at which the cylinder is rotated, substantially as set forth. 2nd. A printing press having a rotary cylinder provided with stops on its periphery, and means, periodically operated as said stops are receding, for feeding paper up to and against said stops at a speed greater than that at which the cylinder is rotated, substantially as set forth. 3rd. A printing press having a rotary impression-cylinder and means for positioning or registering paper on said cylinder and causing the paper to travel at a speed greater than that at which the cylinder is rotated, comprising two rollers, one of said rollers being operated by the other, which latter is of varying diameter, the first-mentioned roller being designed to engage the points of greatest diameter of said latter roller, and belts engaging said impression cylinder and one

of said rollers, substantially as set forth. 4th. A printing press having a rotary impression-cylinder and means for positioning or registering paper on said cylinder and causing the paper to travel at a speed greater than that at which the cylinder is rotated, comprising a constantly-rotated roller of varying diameter, and a second roller driven by said former roller when in engagement with the points of greatest diameter of said former roller, and belts engaging said impression-cylinder and one of said rollers, substantially as set forth. 5th. A printing press having a rotary impression-cylinder provided with stops on its periphery, and mechanism for positioning or "registering" paper on said impression-cylinder against said stops while said cylinder is being rotated, comprising a constantly-rotated feed-roller, a second feed-roller designed to be periodically rotated by contact with said former feed-roller, and means for guiding the paper or the like between said feed-rollers, and holding the same until grasped by said feed-rollers and fed forward thereby, to, or against said stops, the contact of said feed-rollers being periodically effected according to the position of said impression-cylinder, substantially as set forth. 6th. A printing press having a rotary impression-cylinder and provided with stops on its periphery, and mechanism for feeding the paper at a greater speed than that at which the impression-cylinder is rotated and positioning or "registering" the same on said impression-cylinder against said stops, the same comprising a constantly-operated feed-roller having rings or enlargements, a second feed-roller, means for periodically raising said second feed-roller into frictional contact with said rings or enlargements of said former feed-roller, whereby the paper is fed forward at a speed greater than that at which the cylinder is rotated when being positioned thereon, and belts engaging said impression-cylinder and said former feed-roller, substantially as set forth. 7th. In a printing press, means for positioning the paper or the like to be printed, comprising a fixed stop, a movable tongue or bar adapted to co-operate therewith, a guide-bar or plate, and a plate-spring carried by said guide-bar or plate and in contact with said tongue with which it is designed to move, whereby when the article to be printed is fed between the said tongue and plate-spring and into contact with the stop a retrograde movement is prevented, substantially as set forth. 8th. In a printing press means for regulating or positioning the article to be printed while the cylinders of the press are being rotated, consisting of the stop or stops located on the surface of one of the cylinders of the press, and means for passing the article to be printed up to said stops at a speed greater than the speed of rotation of said cylinder, substantially as set forth. 9th. A printing press having a rotary impression cylinder and mechanism for causing the paper to travel at a greater speed than that at which the cylinder is rotated and positioning or "registering" paper on said cylinder while the latter is being rotated, the said mechanism comprising a feed-roller of varying diameter operated by said cylinder, a stop for arresting the movement of the paper, means for holding the paper against said stop, a guide-bar or plate, a second feed-roller, and means for periodically elevating said guide-bar and said latter roller, the latter being thrown into contact with the maximum circumferential portion of said former feed-roller, whereby the paper is fed to said impression-cylinder at a speed greater than the speed of rotation of the latter, substantially as set forth. 10th. In a printing press, the combination with the rotary impression-cylinder, of a feed-roller mounted in contact with said cylinder, spools in rear of said cylinder, tapes or bands passing over said spools and feed-roller and over said impression-cylinder, a second feed-roller, a guide-bar located thereover, means for holding the paper or the like while passing over said guide-bar, and means for elevating said second feed-roller into engagement with said former feed-roller, substantially as set forth. 11th. A printing press having a rotary impression-cylinder and means for positioning or registering paper on said cylinder and causing the paper to travel at a speed greater than that at which the cylinder is rotated, comprising two rotary shafts, one of said shafts being constantly rotated by the rotation of the other and capable of being moved or rocked toward and away from the latter, both of said shafts being of varying diameter, as and for the purpose set forth. 12th. A printing press having a rotary impression-cylinder and means for positioning or registering paper on said cylinder and causing the paper to travel at a speed greater than that at which the cylinder is rotated, comprising a positively-operated shaft having a gear-wheel and rings or enlargements, a second shaft having corresponding rings or enlargements, and a gear-wheel meshing with said former gear-wheel, and means for moving said latter shaft so as to bring its rings or enlargements into contact with those of the first mentioned shaft, substantially as set forth. 13th. The combination with the cylinder having stops thereon, of a positively-operated shaft having a gear-wheel and rings or enlargements, a second shaft having corresponding rings or enlargements and a gear-wheel meshing with said former gear-wheel, arms supporting said latter shaft, and means for operating said arms operated by said cylinder, substantially as set forth. 14th. The combination with the cylinder having stops thereon and a cam-disc on its journal, of a positively-operated shaft, having a gear-wheel and rings or enlargements, a second shaft also, having rings or enlargements, and a gear-wheel meshing with said former gear-wheel, supports for said second shaft, short shafts to which said supports are secured, arms on said shafts, a shaft to which said arms are connected, and an arm on said latter shaft having its free end in contact with said cam-disc, substantially as set forth.

No. 56,515. Advertising Apparatus.

(Appareil d'annonce.)

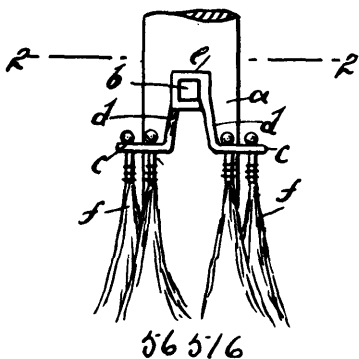


Jeremiah O'Meara, New York, State of New York, U.S.A., 7th July, 1897; 6 years. (Filed 17th April, 1897.)

Claim.—1st. In an advertising apparatus, comprising a globe, chimney or shade for an illuminating agent, having a recessed portion extending entirely around it, and adapted to receive and support a detachable advertising medium, substantially as described. 2nd. A globe, chimney or shade for illuminating advertisements, having a surrounding recessed portion provided with shoulders at the top and bottom, combined with a detachable strip containing an advertisement and loosely applied to said recessed portion and held in place thereon by the adjacent shoulders, substantially as described. 3rd. An advertising apparatus, comprising a globe, chimney or shade for an illuminating agent, having a recessed portion extending all around it, and adapted to receive and support a detachable advertising medium, and means to hold the globe, chimney or shade in place and in given position for the proper exposure of the advertisement placed thereon, substantially as described. 4th. An advertising apparatus, comprising a strip containing an advertisement, and provided with means for detachably applying it to a globe, chimney or shade, the said globe, chimney or shade having a recess extending entirely around it, and within which the said strip is arranged and supported without other contact with or attachment to the said globe, chimney or shade, substantially as described.

No. 56,516. Rib-tip for Umbrellas or Parasols.

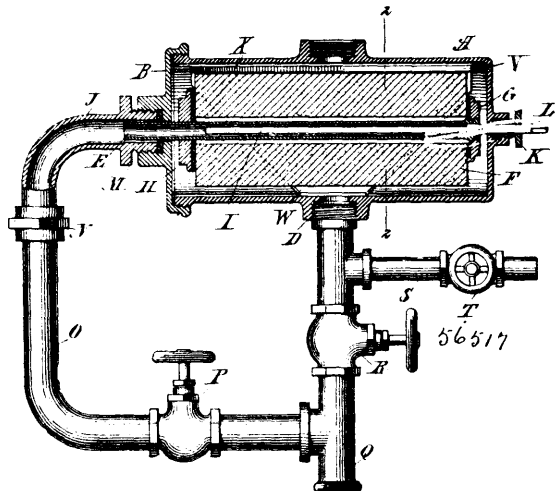
(Nervure de ferrure de parapluie, etc.)



Hey ward Scudder, Northport, New York, U.S.A., 7th July, 1897 6 years. (Filed 28th April, 1897.)

Claim.—1st. In a rib-tip clamp, the combination with an umbrella stick, of a pin projected from the stick and having a plane side, and a clamp proper having a resilient eye embracing the pin and having a plane side yieldingly held against the plane side of the pin, substantially as described. 2nd. In a rib-tip clamp, the combination with an umbrella stick, of a pin projecting through the same and extending from opposite sides thereof, the terminals of the pin having plane sides, and two clamp sections, one having a body portion adapted for engagement with the ribs, and having two shanks, each shank having a yielding eye, the eyes receiving the terminals of the pin and conforming to the cross-sectional shape of the terminals of the pin, substantially as described.

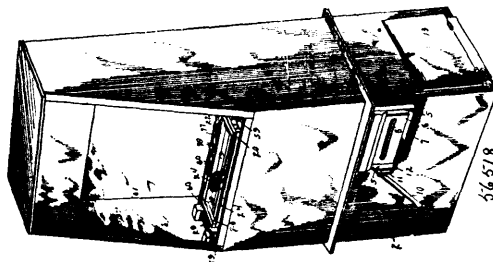
No. 56,517. Filter. (Filtre.)



Theodore Linke, New York, State of New York, U.S.A., 7th July, 1897; 6 years. (Filed 21st April, 1897.)

Claim. 1st. The filter comprising the external casing having the inlet and outlet for water, combined with the revoluble porous stone or other suitable filtering media mounted upon the hollow rod or tube within said casing, and a scraper secured within said casing and having its edge in contact with the surface of said porous stone to cleanse said surface during the revolving motion of the stone, the said hollow rod or tube being connected with the outlet for filtered water, substantially as shown and set forth. 2nd. The filter comprising the casing having the inlet and the outlet for water, combined with the porous stone or other suitable filtering media mounted upon the hollow rod or tube within said casing, the delivery pipe for filtered water connected with the end of said tube, and the delivery pipe for unfiltered water connected with said outlet from the casing, and means for cleansing the filtering media, substantially as shown and set forth. 3rd. The filter comprising the casing having the inlet and the outlet for water, combined with the porous stone mounted upon the hollow rod or tube within said casing, the delivery pipe for filtered water connected with the end of said tube to receive the water passing through said stone, and the delivery pipe for unfiltered water connected with the said outlet from the casing to receive the water passing around instead of through said stone, substantially as set forth. 4th. The filter comprising the external casing having the inlet and outlet for water, combined with the revoluble porous stone mounted upon the hollow rod or tube within said casing, the stuffing boxes in which the ends of said rod or tube is mounted, means for revolving said stone, and means for cleansing said stone, substantially as set forth. 5th. The filter comprising the external casing having the inlet and outlet for water, combined with the revoluble porous stone mounted upon the hollow rod or tube within said casing, the outlet pipe for filtered water secured to the end of said tube and serving as a means to revolve said stone, and means for cleansing said stone, substantially as set forth.

No. 56,518. Letter Box. (Boite à lettres.)



Harvey Benham, Bedford, Indiana, U.S.A., 7th July, 1897; 6 years. (Filed 26th April, 1897.)

Claim. 1st. In a device of the class described, the combination of a casing provided with a letter box and having an entrance opening, a movable cover arranged at the entrance opening, a permanent record sheet, movable stamps arranged to engage the record sheet, mechanism for actuating the stamps, and connections between the stamps and the movable cover and the latter and the record sheet, whereby the stamps will be operated and the record sheet advanced to bring a fresh portion opposite the stamps when the cover is opened, substantially as and for the purpose described. 2nd. In a device of the class described, the combination of a casing

provided with a letter box and having an entrance opening, a movable cover arranged at the entrance opening, a record sheet, movable stamps arranged to engage the record sheet, mechanism for actuating the stamps, connections between the stamps and the movable cover whereby the former will be operated when the latter is opened, a door for the letter box, and an indicating device connected with the door, operated by the same and provided with a marking device arranged to engage the record sheet when the door is opened, substantially as and for the purpose described. 3rd. In a device of the class described, the combination of a casing having a letter box provided with an opening, ways arranged at the opening, a sliding cover mounted in the ways, an operating lever fulcrumed on the casing at one end of the cover, a guide or keeper receiving the connecting rod, and recording mechanism connected with the lever, whereby the latter will be operated when the cover is opened, substantially as and for the purpose described. 4th. In a device of the class described, the combination of a casing having a letter box and provided with a door, a reciprocating indicator provided with a marking device, and a rod capable of upward and downward movement connected with the door, and having an inclined portion slidably connected with the indicator, whereby the latter will be reciprocated when the rod is moved upward and downward, substantially as described. 5th. In a device of the class described, the combination of a casing, a horizontally disposed reciprocating indicator provided with an angularly disposed portion arranged in suitable guides and adapted to shift the indicator laterally when the same is moved longitudinally, a marking device carried by the reciprocating indicator, and a rod capable of upward and downward movement and provided with an inclined portion slidably connected with the reciprocating indicator, substantially as and for the purpose described. 6th. In a device of the class described, the combination of a casing provided with a letter box having an entrance opening, a movable cover arranged over the opening, a reciprocating stamping frame, movable stamps located adjacent to the stamping frame, clock mechanism connected with and operating the stamps, and connections between the movable cover and the stamping frame whereby the latter is reciprocated, substantially as described. 7th. In a device of the class described, the combination of a casing having a letter box, a movable cover and operating lever connected with and adapted to open the cover, a horizontally disposed reciprocating stamping frame, movable stamps, clock mechanism for actuating the stamps, and a vertically movable wedge connected with the operating lever and arranged to engage and actuate the stamping frame, substantially as and for the purpose described. 8th. In a device of the class described, the combination of a casing having a letter box, a movable cover, an operating lever connected with and adapted to open the cover, a horizontally disposed reciprocating stamping frame, movable stamps arranged to be engaged by the stamping frame, a wedge connected by the operating lever and arranged to engage the stamping frame, and springs for returning the stamping frame to its initial position, substantially as described. 9th. In a device of the class described, the combination of minute and hour wheels capable of rotation and provided with a series of stamps, a record sheet arranged to be engaged by the stamps, a stamping frame arranged to engage a stamp of each wheel and carry the same against the record sheet, clock mechanism connected with and adapted to actuate the said wheels, and operating mechanism connected with and actuating the stamping frame, substantially as described. 10th. In a device of the class described, the combination of a supporting frame, hour and minute wheels having their faces arranged in the same plane and provided with spokes, stamps mounted on the spokes and arranged on the faces of the wheels, a record sheet arranged adjacent to the faces of the wheels in position to be engaged by the stamps, an ink carrying ribbon interposed between the record sheet and the stamps, and a movable stamping frame arranged to engage a stamp of each of the wheels to cause the same to engage the ribbon and the record sheet, substantially as described. 11th. In a device of the class described, the combination of a supporting frame, hour and minute wheels carrying stamps, and provided with ratchet wheels, oscillating levers, actuating pawls connected with the levers and engaging the ratchet wheels, a horizontal rod pivotally connected with one of the oscillating levers, passing through a perforation of the other lever and provided with a head, an actuating wheel having a series of spokes arranged to engage the lever adjacent to the head of the rod, one of the spokes being offset from the plane of the other spokes and being arranged to engage the head of the rod, whereby both levers will be operated, substantially as described. 12th. In a device of the class described, the combination of vertically-disposed hour and minute wheels carrying stamps, the substantially vertically-disposed oscillating levers 37 and 38 connected with and adapted to actuate the said wheels, a connecting rod pivoted at one end to the lever 38 and passing through a perforation of the lever 37, an actuating wheel having a series of arms or spokes arranged to engage the lever 37, one of the spokes being bent out of the plane of the other spokes and arranged to engage the adjacent end of the connecting bar, whereby both levers will be oscillated, substantially as described. 13th. In a device of the class described, the combination of a supporting frame, the vertically disposed hour and minute wheels provided with stamps, clock mechanism for operating the wheels, an ink-carrying ribbon arranged adjacent to the wheels and mounted on spools, a horizontally-disposed stamping frame arranged to engage a stamp of each of the

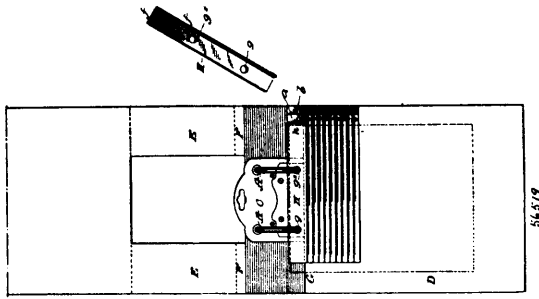
wheels, a vertically-movable horizontal bar, a vertically-movable wedge connected with the horizontal bar and arranged to engage the stamping frame, and adapted to actuate the same when the horizontal bar is drawn downward, and an actuating device connected with the horizontal bar operated by the same and adapted to rotate the spools, substantially as described. 14th. In a device of the class described, the combination of a vertically-disposed spool provided with a toothed wheel, and a vertically-movable wedge-shaped tooth arranged to engage the teeth of the wheel, whereby the spool is rotated, substantially as described. 15th. In a device of the class described, the combination of a supporting frame, vertically-disposed spools located at opposite sides thereof and provided with toothed wheels, an ink-carrying ribbon extending across the frame and having its ends arranged on the spools, a horizontal bar extending across the frame and capable of upward and downward movement, rods extending upward from the ends of the bar, and wedge-shaped teeth carried by the rods and arranged to engage the teeth of the spools, said wedge-shaped teeth being swivelled to the rods and adapted to be turned out of engagement with the toothed wheels to permit the ribbon to be reversed, substantially as and for the purpose described. 16th. In a device of the class described, the combination of a letter box having an opening, a permanent record sheet mounted within the letter box, time-controlled stamps, a movable cover arranged over the letter box and opening and connected with and adapted to operate the stamps, whereby the time of deposit of a letter will be recorded, and connections between the record sheet and the movable cover adapted to advance the said sheet and to bring fresh portions of the same opposite the stamps, substantially as described. 17th. In a device of the class described, the combination of a casing having a letter box and provided with a movable cover, a horizontal bar capable of vertical movement, an operating lever connected with the cover and with the horizontal bar, stamp-carrying wheels, clock mechanism for operating the wheels, vertically-disposed spools provided with toothed wheels, a ribbon arranged on the spools and extending across the casing in position to be engaged by the stamps, a stamping frame adapted to engage a stamp of each of the wheels, a wedge engaging the stamping frame and connected with the horizontal bar, vertically-movable rods provided with actuating devices engaging the toothed wheels of the spools, a substantially vertically disposed record sheet, upper and lower rolls carrying the record-sheet, and an actuating device for rotating the upper roll, and a rod connecting such actuating device with the horizontal bar, substantially as described. 18th. In a device of the class described, the combination with an oscillating stamp-carrier having a pair of arms, a substantially triangular shifting device connected with the oscillating stamp-carrier and provided at opposite sides with shoulders, a lever located above the shifting device, a pivoted finger depending from the lever and arranged to engage the shifting device, and means for operating the lever, substantially as described. 19th. In a device of the class described, the combination of an hour-wheel provided with stamps, a cam-shaped arm connected with the hour-wheel, an oscillating stamp-carrier provided with a pair of arms, a triangular shifting device provided at opposite sides with shoulders, a lever fulcrumed at one end and having its other end arranged to be engaged by the cam-shaped arm, and a pivoted finger depending from the lever and arranged to engage the shifting device, substantially as described. 20th. In a device of the class described, the combination of a minute wheel provided on its face with stamps, an hour-wheel carrying similarly arranged stamps, operating mechanism for actuating the wheels and for rotating the hour-wheel one point at each complete revolution of the minute wheel, an oscillating stamp-carrier provided with a pair of arms arranged to swing back and forth and carrying two stamps, and connections between the oscillating stamp carrier and the hour-wheel, whereby the former will be shifted at the end of each complete revolution of the latter, substantially as described. 21st. In a device of the class described, the combination of a supporting frame, vertically-disposed spools located at opposite sides thereof and provided with toothed wheels, an ink-carrying ribbon arranged on the spool, guides mounted on the supporting-frame at opposite sides thereof and provided with openings or ways disposed longitudinally and transversely of the frame, wedge-shaped teeth, and swivelled rods carrying the teeth and provided with vertical flanges arranged in said ways and adapted to reciprocate in either of the openings thereof, substantially as and for the purpose described.

No. 56,519. Letter File. (Serre-papier.)

William Allen Cooke, jr., Brooklyn, New York, U.S.A., 7th July, 1897; 6 years. (Filed 26th April, 1897.)

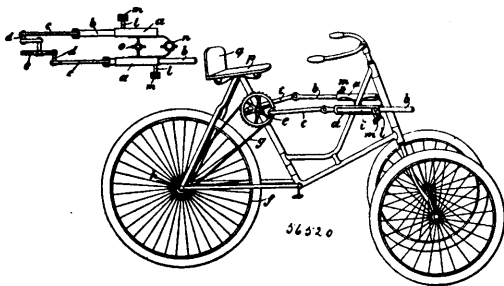
Claim.—1st. As an improvement in paper files, the combination with puncturing and receiving wires and index sheets strung thereon, of a gauge plate provided with puncturing perforations to receive the said wires and a guide on the end of the plate between the index characters and the adjacent perforations in the plate, whereby when papers are placed on the receiving wires by means of the said gauge plate, as described, their side edges register with each other and do not overlap the index characters, substantially as described. 2nd. The combination with puncturing and receiving wires and index sheets strung thereon, of a gauge plate provided with puncturing perforations to receive the said wires and a flanged guide on the end of the plate between the index characters

and the adjacent perforation in the plate, whereby when papers are placed on the receiving wires by means of the said gauge plate as



described, the side edges are made to register with each other and are prevented from overlapping the index characters, substantially described. 3rd. The combination with the puncturing and receiving wires and index sheets strung thereon, of a gauge plate provided with puncturing perforations to receive the said wires and co-operate therewith to perforate the papers, guides on one side edge and the end of the plate, the guide on the end of the plate being between the index characters and the adjacent perforations in the plate, whereby when papers are placed on the receiving wires by means of the plate, as described, the side edges of the papers are made to register and are prevented from overlapping the index characters, substantially as described.

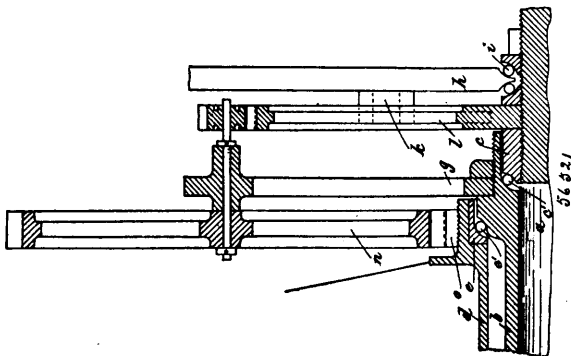
No. 56,520. Cycle Mechanism. (Mecanisme de propulsion.)



Charles Samuel Beusted, Forest Hill, Kent, England, 7th July, 1897; 6 years. (Filed 31st May, 1897.)

Claim.—1st. Manual power mechanism comprising foot pedals working horizontally and connected to driving cranks, substantially as described. 2nd. In manual power mechanism the combination of the horizontal slides *i*, guides or casings *a* and pedals *m*, substantially as described. 3rd. In manual power mechanism, the combination of the driving sprocket wheel *e*, cranks *d*, connecting rods *c*, slides *i*, casings *a* and pedals *m*, substantially as described.

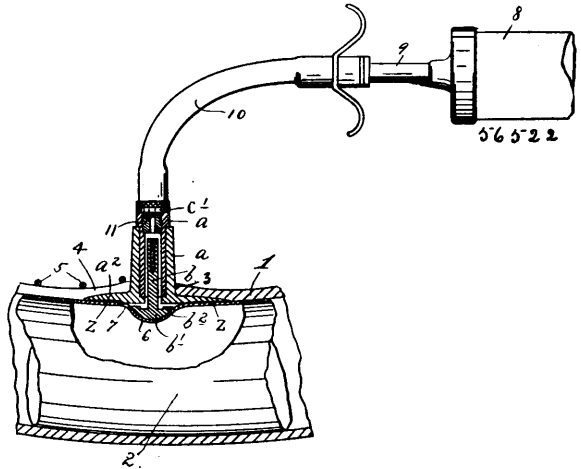
No. 56,521. Cycle. (Cycle.)



Alfred Ewald Franz Nehmer, Berlin, Germany, 7th July, 1897; 6 years. (Filed 29th May, 1897.)

Claim.—1st. A driving device for bicycles comprising in combination with the frame *a*, axle *a* and hub *d* of the rear wheel, a sleeve *b*, attached to the frame, the ball bearings *c*, *c*¹, and *c*, *c*¹, whereby said hub and axle are journaled on said sleeve, foot-levers *h*, arranged on each side of hub *d*, and carrying pawls *k*, wheel *l*, engaging therewith, and gear wheels *m*, *n*, *o*, connecting the hub *d*, with the driving wheel *l*.

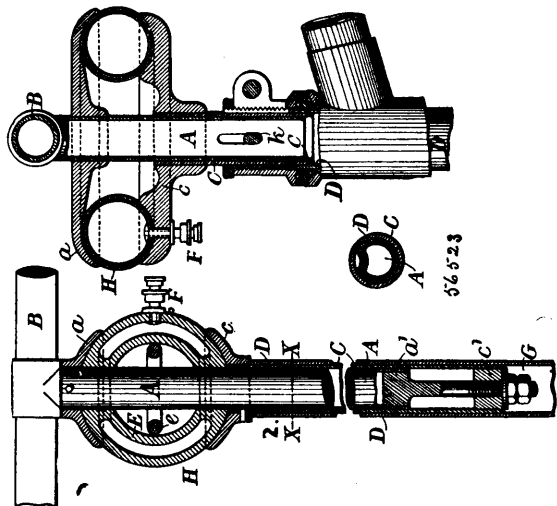
No. 56,522. Tire Valve. (Soupape de bandage.)



Hiram N. Rhodes, Duluth, Minnesota, U.S.A., 7th July, 1897; 6 years. (Filed 28th May, 1897.)

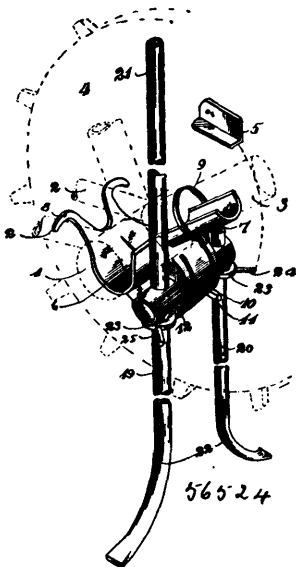
Claim.—1st. The combination with a tire nipple, of a valve adapted to be seated against the inner face of said nipple, and a perforated diaphragm inward of said valve, yielding under the opening movement of said valve, to pass the air in the charging action, and operative on said valve, to co-operate in closing the same, under the fluid pressure from the charged tire, substantially as described. 2nd. The combination with a tire nipple, of a valve adapted to be seated against the inner face of said nipple, and an elastic diaphragm provided with a perforation located eccentric to said valve, which diaphragm is adapted to yield under the opening movement of said valve, to pass the air in the charging action, and to operate on said valve to close the same, under the fluid pressure from the charged tire, substantially as described. 3rd. The combination with the tire nipple, of the valve *b*, *b*¹, adapted to be seated against the inner face of said nipple, the clamping cap-screw *c*, having screw-threaded engagement with the stem *b*, of said valve, and the perforated diaphragm inward of said valve, yielding under the opening movement of said valve, to pass the air in the charging action, and operative on said valve to close the same under the fluid pressure from the charged tire, substantially as described. 4th. The combination with the tire nipple *a*, *a*², formed of soft rubber, of the valve *b*, *b*¹, the head *b*¹ of which is pressure seated against the inner face of said nipple, and is provided with the annular flange *b*, substantially as and for the purpose set forth.

No. 56,523. Pneumatic Springs for Velociped Saddles and Steering Handles. (Resort pneumatique pour selles de velocipedes, etc.)



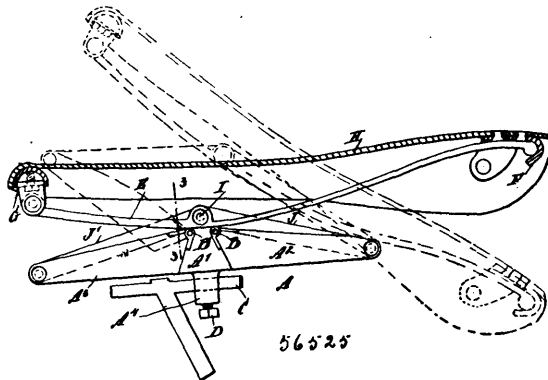
Frederick John Esmond, Westminster, London, England, 7th July, 1897; 6 years. (Filed 28th May, 1897.)

Claim.—In combination with the steering handle or the saddle support of a velocipede, a tube attached thereto and fitted to slide in a second tube which is inserted or fixed in a tube that forms part of the framing, and a pneumatic cushion interposed between cups fixed on the two tubes first mentioned, substantially as and for the purpose set forth.

No. 56,524. Bicycle Support. (Support de bicycles.)

Paul Person, Stockton, California, U.S.A., 7th July, 1897; 6 years. (Filed 28th May, 1897.)

Claim.—1st. In a bicycle support, the combination with a rotatable shaft, of supporting legs provided with feet and journalled to turn in said shaft on their long axis, pivoted members connected to said legs and adapted for turning said legs on their longitudinal axis while they are moving to supporting position, and means for holding the legs in supporting position. 2nd. In a bicycle support, the combination with a casing or housing connected to the bicycle, of a shaft journalled in said casing or housing, legs provided with feet and journalled in the shaft so that they may turn on their longitudinal axis, pivot pins projecting from the legs and received loosely into the casing, said legs being normally held in raised position, but adapted for rotation with the shaft and for turning on their longitudinal axis to spread their feet when thrown around to support the bicycle, and means for holding said legs in supporting position. 3rd. In a bicycle support, the combination with a casing or housing connected to the bicycle, of a shaft rotatably mounted in the casing, legs provided with feet and normally held in raised position, said legs being journalled in the shaft so that they may turn on their longitudinal axis, collars on the legs to prevent them from sliding in the shaft, pivot pins projecting from the collars and received loosely into the casing, said parts being so disposed and related that when the legs and shaft are turned to bring the former to supporting position the engagement of the pivot pins with the casing will cause the legs to turn on their longitudinal axis thereby spreading their feet, and means for holding said legs in supporting position. 4th. In a bicycle support, the combination with a casing or housing, of a ribbon spring connected to the casing or housing, a shaft rotatably mounted in the casing or housing and provided with a cam against which the spring leans and supporting legs connected to the shaft, said spring by contact with the cam being adapted to hold the supporting legs normally raised and which locks them when they are turned to supporting position. 5th. In a bicycle support, the combination with a casing or housing connected to the bicycle, of a spring connected to said casing or housing and provided with a pin a shaft journalled in the casing and provided with a friction roller adapted to ride on the spring and abut on the pin, and supporting legs connected to the shaft and normally held in raised position by the engagement of the spring and friction roller, said supporting legs being adapted to be lowered to support the bicycle and when so lowered be held locked by the engagement with the friction roller with the pin. 6th. In a bicycle support, the combination with a casing or housing adapted for attachment to the bicycle, of a spring connected to the casing and provided with a pin, a shaft journalled in the casing and provided with a friction roller adapted to ride on the spring and to lock with the pin, legs journalled in the shaft and provided with feet and pivot pins connected to the legs and projecting loosely into the casing, said parts being so disposed and related that the spring normally holds the legs in raised position, but when said legs are lowered to support the bicycle they turn on their longitudinal axis and spread the feet and are held in supporting position by the engagement of the friction roller with the pin connected to the spring. 7th. In a bicycle support with a supporting leg, of mechanism actuated by the movement of the drive sprocket which is adapted to engage with the leg and raise the latter out of supporting position. 8th. In a bicycle support, the combination with a pivoted supporting leg, of a drive sprocket provided with a cam adapted for engagement with the leg to raise it out of supporting position when the sprocket rotates.

No. 56,525. Rocker. (Bascule.)

Joseph Shillaber Byrnes and Edmund P. Martin, jr., both of Brooklyn, New York, U.S.A., 7th July, 1897; 6 years. (Filed 25th May, 1897.)

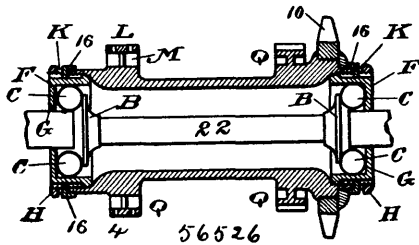
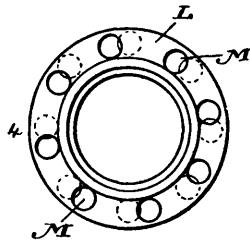
Claim.—1st. The combination of a base composed of three sections, the intermediate of which has means by which it may be secured to a support and the end sections of which are respectively pivoted to opposite sides of the intermediate section, each end section having a slot running longitudinally through it, a link located in each slot, the outer ends of the links being respectively pivoted to the end sections of the base at the outer ends thereof, and the inner ends of the links being aligned with each other, and a rail running longitudinally with the base and bearing on the upper side of the same, the rail and the inner ends of the links being pivotally joined to each other on a common axis, substantially as described. 2nd. The combination of a base having three sections, the intermediate of which is provided with means for securing it to a support, and the end sections of which have their inner ends respectively pivoted to opposite sides of the intermediate section, a link pivoted to each outer end of the end sections of the base, the links respectively extending inwardly and having their inner ends located over the intermediate section of the base, and a rail bearing on the upper side of the base, the rail and the inner ends of the links being joined to each other on a common axis, substantially as described. 3rd. The combination of a base having a curved upper side and formed of three sections, the intermediate of which is adapted to be secured to a support and the end sections of which are respectively pivoted to opposite sides of the intermediate section, the inter-engaging faces of the sections being plane so as to limit the movement of the sections in one direction, a link pivoted to each end section, and a rail rocking on the base and joined to the inner ends of the links by a pivot common to the links and to the rail, substantially as described. 4th. The combination of a base having three sections, the intermediate of which has an orificed lug projecting downwardly therefrom whereby the section may be secured to a stationary support, the end sections being respectively pivoted to opposite sides of the intermediate section and the inter-engaging faces of the sections being plane so that the movement of the sections in one direction may be limited, each end link located in each slot of the end sections, the outer end of each link being pivoted to the outer end of each end section, the links extending inwardly to a point over the intermediate section, and a rail rocking on the base, the rail and the inner ends of the links having pivotal connection on a common axis, substantially as described.

No. 56,526. Bicycle Bearing. (Cousinet de bicycles.)

William N. Whately, Springfield, Ohio, U.S.A., 7th July, 1897; 6 years. (Filed 9th June, 1897.)

Claim.—1st. In a bearing for bicycles and other purposes the combination with a fixed or rotary axle having ball-bearing shoulders or cones, and balls or equivalent devices for engaging the same, of a casing comprising two members engaging each other by a screw-thread, one of which members is provided with ball-bearing shoulders and is longitudinally adjustable by said thread to regulate the tightness of the bearing, one of said members being provided with a locking shoulder and the other with a series of locking shoulders arranged around the same, a loose spur adapted to engage said locking shoulder of one member and to be pressed yieldingly in right lines directly toward the other member to engage one of said series of shoulders, whereby it may lock said members against relative rotation, and a nut or ring screwing on one of said members and tightly engaging directly against the other member, substantially as specified. 2nd. In a bearing for bicycles and other purposes the combination with a fixed or rotary axle having ball-bearing shoulders, and balls or equivalent devices engaging the same, of a casing comprising two members engaging each other by a screw-thread, one of which members is provided with ball-bearing shoulders and is longitudinally adjustable by said thread to regulate the tightness of the bearing, and one of said members being provided with a series of locking shoulders arranged around the same, a loose spur connected with

the other member and adapted to be pressed yieldingly in right lines directly toward the former member to engage one of said series

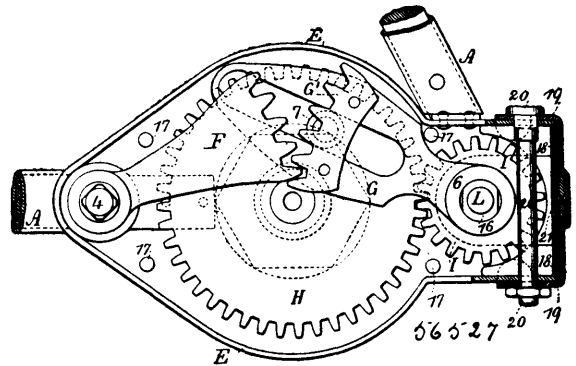


of shoulders, whereby it may lock said members against relative rotation, and a nut or ring screwing on one of said members and tightly engaging directly against the other member, substantially as specified. 3rd. In a bearing for bicycles and other purposes the combination with a fixed or rotary axle having ball-bearing shoulders, and balls or equivalent devices engaging the same, of a casing comprising two members engaging each other by a screw-thread, one of which members is provided with ball-bearing shoulders and is longitudinally adjustable by said thread to regulate the tightness of the bearing, one of said members being provided with a series of locking shoulders arranged around the same, a loose spur connected with the other member and adapted to be pressed yieldingly in right lines directly toward the former member to engage one of said series of shoulders, whereby it may lock said members against relative rotation, and a nut or ring screwing on one of said members by a thread reversed to the first mentioned thread and tightly engaging directly against the other member, substantially as specified. 4th. In a bearing for bicycles and other purposes the combination of a barrel or hub, an axle therein having shoulders, cups or rings in the hub having opposing shoulders, one of which cups is exteriorly threaded and adjustable longitudinally of the axle, balls or equivalent devices between said shoulders, a locking spur or device engaging the hub and cup to prevent rotation and longitudinally movable relative to said parts, and a locking ring or nut screwing on said cup and tightly engaging directly against the end of the hub, substantially as specified. 5th. In a bearing for bicycles and other purposes the combination of a barrel or hub, an axle therein having shoulders, cups or rings in the barrel or hub having opposing shoulders, one of which cups is exteriorly threaded and adjustable longitudinally of the axle, balls or equivalent devices between said shoulders, a locking spur or device engaging the barrel or hub and cup to prevent rotation and longitudinally movable relative to said parts, a ring for rotating the spur and cup, and a locking ring or nut screwing on said cup to clamp the latter in place relative to the hub or barrel, substantially as specified. 6th. In a bearing for bicycles and other purposes the combination of a barrel or hub, an axle therein having shoulders, cups or rings in the barrel or hub having opposing shoulders, one of which cups is exteriorly threaded and adjustable longitudinally of the axle, balls or equivalent devices between said shoulders, a locking spur or device engaging the barrel or hub and cup to prevent rotation and longitudinally movable relative to said parts, a ring for rotating the spur and cup formed to extend over and around the end of the hub or barrel, and a locking ring or nut screwing on said cup to clamp the latter in place relative to the hub or barrel, substantially as specified. 7th. In a roller bearing, the combination with a shaft, of a shoulder or cone of hard material formed with an internal bearing having sharp corrugations adapted to cut into the material of the latter when the cone is forced thereon, substantially as specified. 8th. The combination with the shaft, of the cone having the sharp internal cutting corrugations bevelled at their ends, substantially as specified. 9th. The combination of the shaft having an enlargement 24 and contiguous shoulder 25, of the cone having sharp internal cutting corrugations or edges, substantially as specified. 10th. As a new article of manufacture, a shoulder or cone for ball-bearings formed of hard material and having sharp internal cutting corrugations, substantially as specified. 11th. A wheel-hub for straight spokes consisting of a barrel formed with radial flanges integral with the barrel, which flanges are bored

with longitudinal holes to form interior arched seats for the spoke-heads, combined with straight spokes secured in said seats and arranged radially in said seats and tangentially to the hub, substantially as specified. 12th. As an article of manufacture a wheel-hub for straight tangent spokes, consisting of a barrel formed with radial flanges integral therewith, which flanges are bored with longitudinal holes forming interior arched seats for the spoke-heads, substantially as specified. 13th. As a new article of manufacture a wheel-hub for straight tangent spokes, consisting of a barrel formed with radial flanges integral therewith, which flanges are grooved on their inner sides to leave radial webs S and inwardly extending flanges R, and bored with longitudinal holes forming interior arched seats for the spoke-heads, substantially as specified. 14th. As a new article of manufacture a hub for straight tangent spokes consisting of a barrel formed with radial flanges integral with the barrel, which flanges are bored with longitudinal holes to form interior arched seats for the spoke-heads, the holes in one web being out of line with those in the other, combined with straight spokes secured in said seats and arranged radially in said seats and tangentially to the hub, substantially as specified. 15th. As a new article of manufacture a wheel for straight tangent spokes, consisting of a barrel formed with radial flanges integral therewith, which flanges are grooved on their inner sides to leave radial webs S and inwardly extending flanges R, and bored with longitudinal holes forming interior arched seats for the spoke-heads, said seats having radial holes for the spokes countersunk on the inner side of the arch substantially as specified.

No. 56,527. Cycle Mechanism.

(Mécanisme de cycles.)

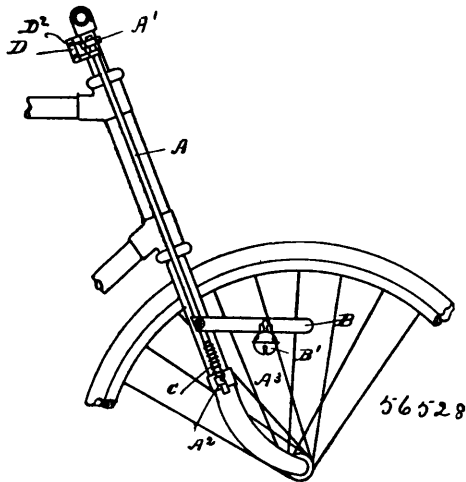


Johannes Theodor Pedersen, Woodside, New York, U.S.A., 7th July, 1897; 6 years. (Filed 2nd June, 1897.)

Claim.—1st. The combination with the wheel and frame in a cycle, of a pinion upon the hub of the wheel, a gear directly engaging such pinion and a crank pin upon the gear, a short arm pivoted at one end to a support adjacent to the axle of said gear, and having a slot herein receiving the crank pin upon the gear, a pivotal support and a foot lever thereon and extending forward of such support, and a connector between the back end of the foot lever and the short slotted arm, substantially as specified. 2nd. The combination with the wheel and frame in a cycle, of a pinion upon the hub of the wheel, a gear directly engaging such pinion and crank pin upon the gear, a short arm pivoted upon the axle of the wheel and having a slot therein receiving the crank pin upon the gear, a pivotal support and a foot lever thereon and extending forward of such support, and a connector between the back end of the foot lever and the short slotted arm, substantially as specified. 3rd. The combination with the wheel and frame in a cycle, of a pinion upon the hub of the wheel, a gear directly engaging such pinion, and a crank pin upon the gear, a case enclosing the gear and pinion, a short arm pivoted at one end to said case and coming wholly within the case, and having a slot therein receiving the crank pin upon the gear, a pivotal support and a foot lever thereon and extending forward of such support and a connector between the back end of the foot lever and the short-slotted arm, substantially as specified. 4th. The combination with a wheel and frame in a cycle, of a pinion connected with the hub of the wheel, a gear engaging such pinion, a crank pin for the gear, a slotted arm pivoted at one end, a sector upon the slotted arm, a foot lever and sector upon its rear end engaging the sector upon the slotted arm for giving motion to the same, and to the crank pin, gearing and cycle wheel, substantially as set forth. 5th. The combination in a driving mechanism for cycles, of a pinion upon the hub of the cycle wheel, a gear wheel engaging such pinion, a box for enclosing the gearing and ball bearings for the hub of the cycle and for the arbor of the gear wheel, a crank pin and roller upon the gear wheel, a slotted arm and a pivot at one end and receiving the roller and crank pin into its slot, a sector connected with the slotted arm, a foot lever pivoted at its rear end outside the box, and a sector within the box connected to the foot lever, and engaging the sector on the slotted arm for giving motion to the respective parts in propelling the cycle, substantially as set forth. 6th. The combination

with the cycle wheel, having a tubular hub, of a pinion connected to such hub, a box receiving the pinion and supported by the frame of the cycle, the rear end of the box being open for the reception of the hub of the wheel, a cross axle passing through the tubular hub of the cycle wheel and ball bearings between the pinion and the cross axle, an auxiliary cap receiving through it the end of the cross axle, an end piece and cross bolt by which the end piece is rigidly connected to the box for the gearing, and a screw acting to adjust the auxiliary cap, the cross axle, the ball bearings and the pinion in relation to the box, and gearing for driving the pinion, substantially as set forth.

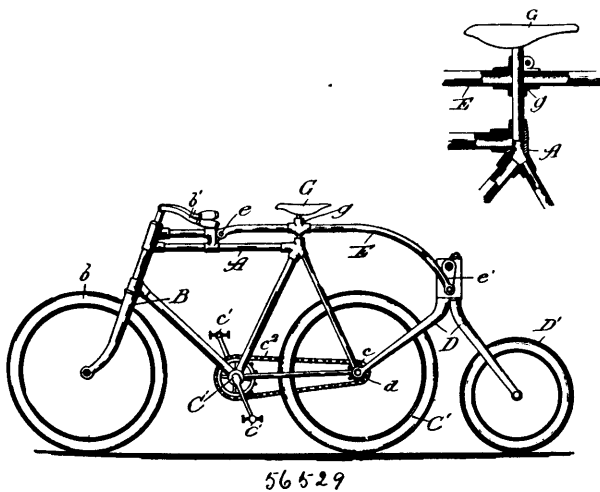
No. 56,528. Bicycle Alarm. (Avertisseur de bicycles.)



Richard Edward Kelly, Allameda, California, U.S.A., 7th July, 1897; 6 years. (Filed 2nd June, 1897.)

Claim.—In a bicycle alarm, the combination of a vibrator B, pivotally mounted on a revolvable rod A, supported on the frame of a bicycle, said vibrator B being adapted to be turned to impinge upon the spokes of a wheel, and suitable devices, D, D¹, D², for so turning the revolvable rod A, substantially as described.

No. 56,529. Velocipede. (Vélocipède.)

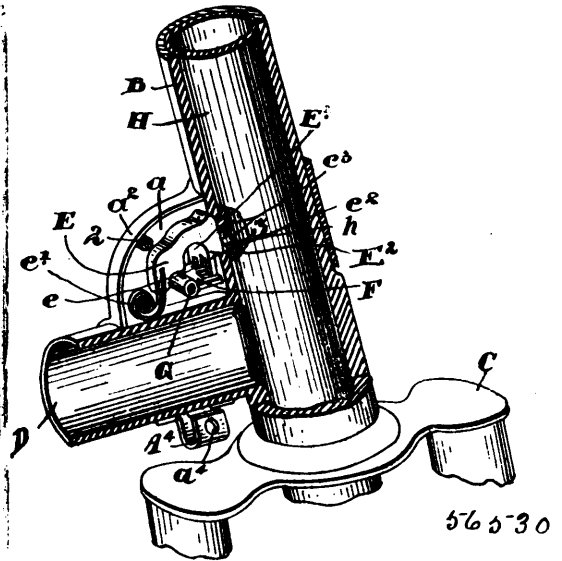


Bohn Chapin Hicks, Chicago, Illinois, U.S.A., 7th July, 1897; 6 years. (Filed 1st June, 1897.)

Claim.—In a vehicle, the combination of a main frame having a front steering wheel and a rear driving wheel, pedal cranks and shaft and means for imparting the motion of the crank shaft to the driving wheel, with an auxiliary frame provided with a supplemental wheel arranged substantially in line with the driving wheel and pivotally connected to the main frame adjacent to the axle of the driving wheel, a connecting rod flexibly connecting the auxiliary frame

with the main frame in front of the driving wheel, and a seat portion on such connecting rod, substantially as described.

No. 56,530. Bicycle Lock. (Serrure de bicycles.)

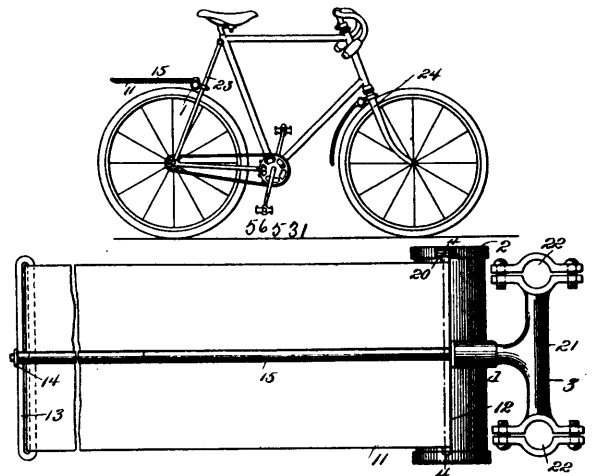


Otto Zink, Toronto, Ontario, Canada, 7th July, 1897; 6 years. (Filed 1st June, 1897.)

Claim.—1st. In an automatic bicycle lock, in combination a suitable case encompassing the sleeve of the front standard and the lower reach at their point of juncture, an arm pivotally swung on a spring and provided with forwardly extending pins, which normally extend through the sleeve, holes in the tubular turning standard and means for throwing the arm rearwardly against the tension of the spring, as and for the purpose specified. 2nd. In an automatic bicycle lock, in combination a suitable case encompassing the sleeve of the front standard and the lower at their point of juncture, the arm E having forwardly extending pins, the spring e to which the arm is secured, the holes in the tubular stem, the recess e¹ in the arm, the projection e² with wards and a key provided with suitable wards designed to be inserted on a pin secured to the band, as and for the purpose specified. 3rd. In a bicycle lock, the band A consisting of the front portion A¹, the quadrantal portion a and a¹ provided with flanges a² and a³, the semi-cylindrical extensions A² and A³, metal strap A⁴, lug A⁵, and headless screws securing the band in position, as and for the purpose specified.

No. 56,531. Mud Guard for Velocipedes.

(Garde-crotte pour vélocipèdes.)

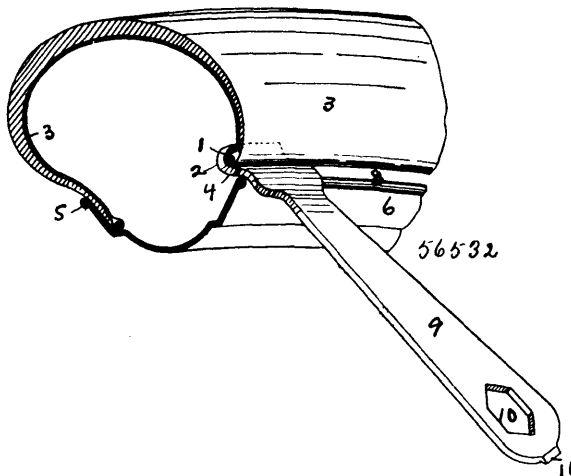


Walter F. Keyes, West Grossdale, Illinois, U.S.A., 7th July, 1897; 6 years. (Filed 31st May, 1897.)

Claim.—1st. A device for the purpose described having in combination a roller, a flexible strip wound upon said roller, means for supporting said roller upon the velocipede frame, and means for holding said strip extended, substantially as described. 2nd. A

device for the purpose described having in combination a roller, a plurality of flexible strips wound upon said roller, means for supporting said roller upon the velocipede frame, and means for holding said strips extended in opposite directions, substantially as set forth. 3rd. A device for the purpose described having in combination a spring actuated roller, a flexible strip wound upon said roller, a bracket for supporting said roller upon the velocipede frame, a rib socketed against said bracket at one end and having its other end engaged by the extended end of said strip whereby the tension of the spring will hold said rib in place, substantially as set forth. 4th. A device for the purpose set forth having in combination a roller, a flexible strip wound upon said roller, a bracket for supporting said roller upon the velocipede frame and a jointed rod projecting from said bracket and adapted to hold said strip extended, substantially as set forth. 5th. A device for the purpose described having in combination a slotted casing, a spring actuated roller journaled in said casing, a flexible strip wound upon said roller and passing through the slot of said casing, means for supporting said casing upon the velocipede frame and a rib detachably secured to said casing and to said strip for holding said strip extended, substantially as set forth. 6th. A device for the purpose described having in combination a roller, two flexible strips wound upon said roller, a bracket having the boss 16, by which said roller may be supported upon the velocipede frame, one of said strips being provided with a slot for the passage of said boss, a rod secured in said boss for holding one of said strips extended, and means for holding the other of said strips extended in the opposite direction, substantially as set forth. 7th. A clip or clamp for supporting a mud guard having in combination a piece adapted to rest against a part of the velocipede frame, a flexible strip held at its midlength by said piece and its extremities being adjustably held to said piece and at a distance apart, substantially as set forth. 8th. A device for the purpose described having in combination a T-piece provided with a perforation at the lower end of its upright portion, an eye-screw passing through said perforation, a flexible wire or strip passing through said eye-screw and having its extremities passed through the perforations at the extremities of the horizontal portion of said T-piece, nuts threaded on the extremities of said strip, and said T-piece being provided with notches, substantially as set forth. 9th. The combination with the front fork of the velocipede frame, of a mud guard having a plate resting against the rear side of said fork, a flexible wire secured at its midlength to said plate and passing forwardly between the fork members and backwardly over the fork head and having its upper extremities adjustably secured to said plate, substantially as set forth.

No. 56,532. Bicycle Tool. (Outil pour bicycles.)



Joseph Henry Iredale, Liverpool, Lancaster, assignee of John Horswill, Chester, both in England, 7th July, 1897; 6 years. (Filed 17th May, 1897.)

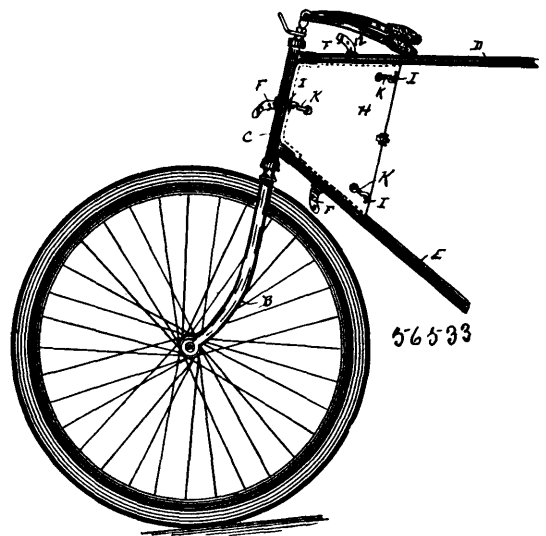
Claim.—A tool for extracting the wired retaining edges of the outer casings of pneumatic tires from wheel rims, consisting of a lever having an opposite sides of it and at or near one of its ends two grooves adapted respectively to receive one of the said edges and the corresponding edge of the wheel-rim both of the said grooves being curved to suit the curves of the wheel-rim, and the retaining wires, substantially as described and shown.

No. 56,533. Tourist's Bicycle Bag. (Sac pour bicycles.)

James A. Swanson, Everett, Mass., U.S.A., 7th July, 1897; 6 years. (Filed 17th May, 1897.)

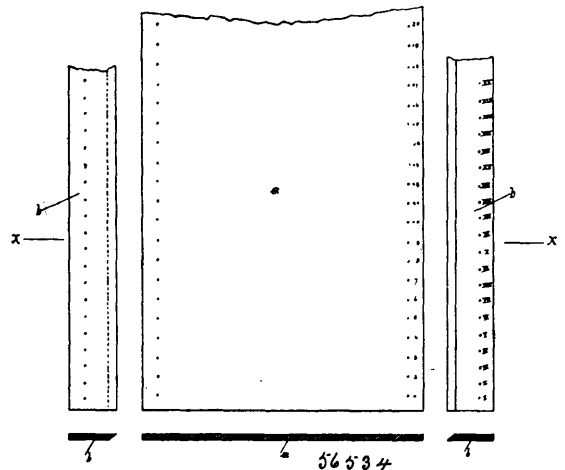
Claim.—The herein described bicycle-bag, consisting of a case or holder G having a smooth unbroken interior, and having grooves

g, g, g, formed on the exterior of its sides, and end for receiving the bicycle-frame, means for fastening said case to the frame, in com-



combination with a detachable box H having a hinged cover h at one end, and fitted within the case or holder G, substantially as described.

No. 56,534. Pneumatic Tire for Velocipedes, etc. (Bandage pneumatique pour vélocipèdes, etc.)



Jonas Bergmann, Neubidschow, Bohemia, Austria, 8th July, 1897; 6 years. (Filed 17th May, 1897.)

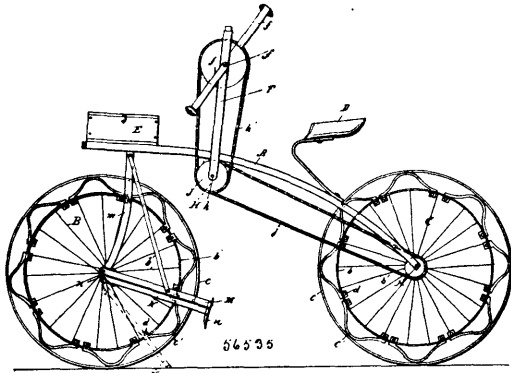
Claim.—1st. In a pneumatic tire for velocipedes and other vehicles, a cover of leather characterized by the fact that by means of the provision of lateral bulged or thickened edges the leather is enabled to acquire a domed form in the dry state without fulling and will retain said domed form permanently, substantially as described. 2nd. A process for the manufacture of the cover specified in claim 1, characterized by the fact that the lateral thickened edges are composed of leather strips of less length than the peripheral length of the developed or spread out cover, the edges of the latter being drawn in by the sewing of the thickened edges, for the purpose of producing a permanently domed form of cover, without fulling and without having to wet the leather, substantially as described. 3rd. In a pneumatic tire for velocipedes and other vehicles, a leather cover, constructed substantially as described.

No. 56,535. Bicycle. (Bicycle.)

Menno Shoemaker, Brotherston, Ontario, Canada, 8th July, 1897; 6 years. (Filed 20th May, 1897.)

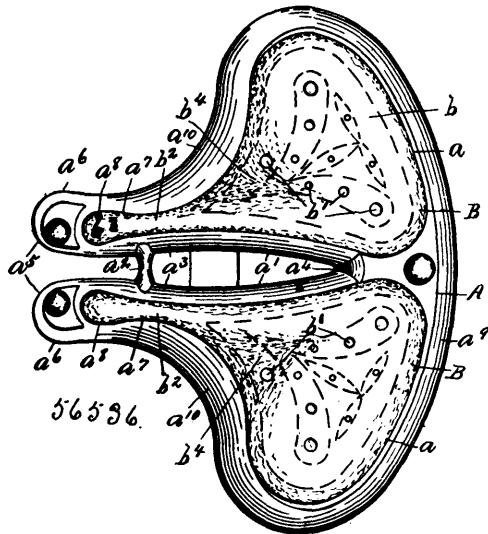
Claim.—1st. In a wheel, the combination, with an inner rim secured to the spokes, of an outer rim, and a series of curved springs having their middle portions secured to the outer rim and having their end portions slidably connected to the inner rim, substantially as set forth. 2nd. The combination, with a bicycle frame, and a

rear wheel journalled therein, of hand cranks carried by the frame, and chain wheels and drive chains operatively connecting the said



hand cranks with the said rear wheel, substantially as set forth. 3rd. The combination, with the front fork of a bicycle, and the front wheel journalled therein, of a support for the feet carried by the said front fork, a support for the bicycle hinged to the said fork by a spring, and a catch carried by the said support for the feet and holding the said support for the bicycle when raised substantially as set forth.

No. 56,536. Bicycle Saddle. (*Selle de bicycles.*)



Frank Abram Hollenbeck, Syracuse, New York, U.S.A., 8th July, 1897; 6 years. (Filed 20th May, 1897.)

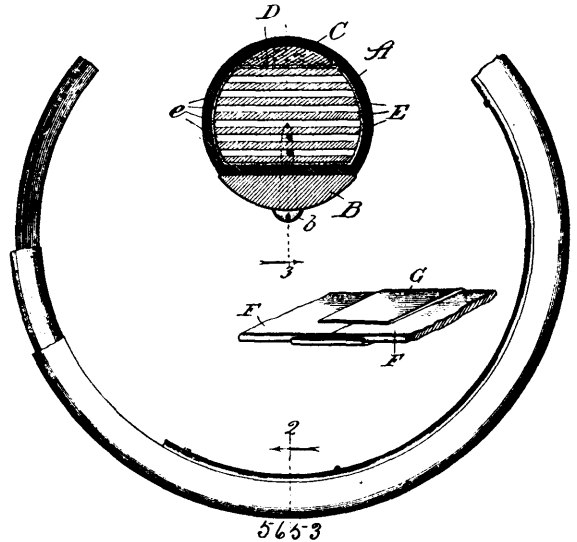
Claim.—In a bicycle saddle, the combination with a rigid frame A, formed with apertures *a, a*, having forwardly extending branches or extensions *a', a'*, supplemental frames C, C, arranged beneath the rigid frame and having their outer edges secured to the rigid frame and their central portions *c, c*, elevated and formed of a yielding material, and pads B, B, permanently secured within the apertures and mounted upon the yielding central portions of the supplemental frames, said pads being provided with forwardly extending arms *b', b'*, arranged in the branches or extensions *a', a'*, substantially as and for the purpose described.

No. 56,537. Bicycle Tire. (*Bandage de bicycles.*)

Rudolph Faas and Peter Reder, both of Chicago, Illinois, U.S.A., 8th July, 1897; 6 years. (Filed 14th April, 1897.)

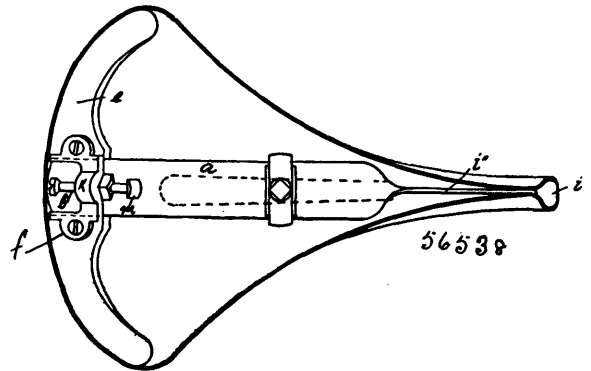
Claim.—1st. In the construction of an elastic tubular tire, the combination of an outer covering of rubber or canvas having a coating of rubber or paint, an inner cushion of felt, an inner tube or core composed alternately of thin wooden slats or strips and short strips of felt or wood and firmly enclosed in canvas, as and for the purpose above described. 2nd. In the construction of an elastic tubular tire, the combination of an inner tube, composed of one or more ribbons of tough elastic wood wound on the circumference of the rim with cushions of felt or wood and wrapped with canvas, as and for the purpose above described. 3rd. In the construction of an elastic tubular tire, an inner cushion of felt, an inner tube or core composed of thin strips of elastic wood separated at intervals by cushions of felt and enclosed in canvas the whole being secured to

the rim by screws or by bolts fitted in the rim transversely with washers embracing the rim and tire, or by a clasp, as and for the



purpose above described. 4th. In the construction of an elastic tubular tire, an inner tube or core composed of thin strips or ribbons of wood, the ends secured by a metal ferrule, the interstices cushioned with strips of felt or wood, said tube or core wrapped in canvas with a felt cushion between the tube or core and outer casing, as and for the purpose specified. 5th. The combination of a rim having a flat tread, a tire with a flat web which fits squarely on the flat tread, the bolts which pass transversely through the rim and washers on the ends of the bolts and embracing the tire and rim closely to hold the tire sidewise displacement on the rim, as and for the purpose described.

No. 56,538. Velocipede Saddle. (*Selle de velocipèdes.*)



Theodore Ernest Beck, Newark, New Jersey, U.S.A., 8th July, 1897; 6 years. (Filed 20th May, 1897.)

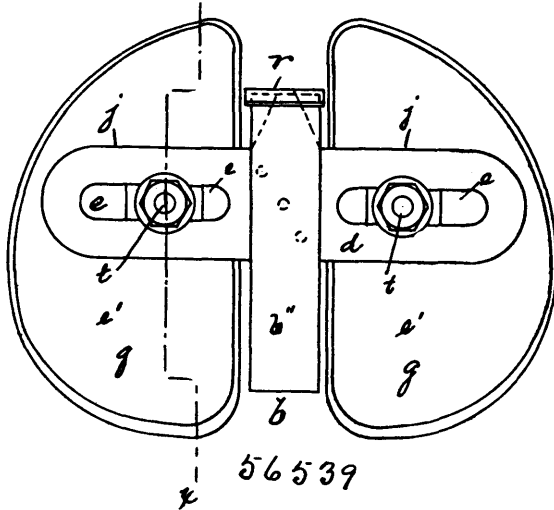
Claim.—1st. The combination with the saddle seat, of a spring having its forward end perforated, the seat being riveted directly upon said spring and a raised loop or cushion being formed above the metal of the springs, substantially as set forth. 2nd. In a bicycle saddle, the combination with the spring having its pommel end bent vertically, of saddle seat fastened against the opposite sides of said spring, a loop being formed which extends above the said spring, substantially as set forth. 3rd. In a bicycle saddle, the combination with the spring, consisting of a strap-like piece of metal bent or twisted near the pommel end and forming a vertically disposed portion *a''*, which is provided with a series of perforations, of a saddle seat looped over the upper edge of said vertically disposed portion and riveted against the opposite sides, substantially as set forth. 4th. The combination with the saddle seat and a spring having the said saddle seat attached to its pommel end and having a bearing *m*, of a cantile plate attached to the rear of said seat and having an integral box or socket *f* forming the slot *f'*, and an ear *k*, having the adjusting screw pressing against said bearing, the screw being adapted to increase or diminish the tension, substantially as set forth.

No. 56,539. Velocipede Saddle. (*Selle de velocipèdes.*)

Theodore Ernest Beck, Newark, New Jersey, U.S.A., 8th July, 1897; 6 years. (Filed 20th May, 1897.)

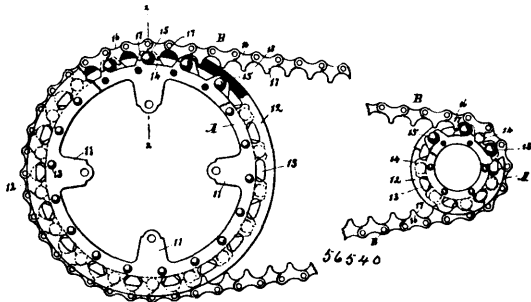
Claim.—1st. The improved saddle for bicycles, etc., in which is combined a spring, a transverse plate fastened upon said spring and

having slots at or near its opposite ends and seat sections having bolts extending down in said slots and means for holding said bolts



in place, the seat sections being both pivotally adjustable and adjustable bodily to and from one another on the transverse plate, substantially as set forth. 2nd. The combination of the seat and a doubled supporting spring, the upper part of which supports the seat and extends forward from said seat, and the lower part is curved to admit a change in inclination of the seat and is adapted to engage the upper part to limit vibration, substantially as set forth.

No. 56,540. Sprocket-Wheel and Chain Therefor.
(Roue dentée et chaîne.)

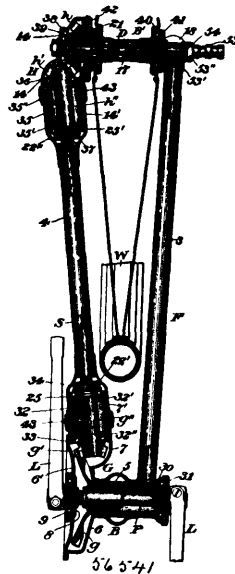


John Cornelius Cottie, New York, and Charles Jackson Marks, Brooklyn, both in the State of New York, U.S.A., 8th July, 1897; 6 years. (Filed 25th May, 1897.)

Claim.—1st. A sprocket-wheel, constructed of a series of rings secured together, a flange formed at each side of the peripheral portion of the wheel, bearings located in the space between the flanges of the wheel, and rolling surfaces mounted to turn in the said bearings, substantially as shown and described. 2nd. A sprocket-wheel, constructed of a series of rings secured together, the centre ring being provided with inwardly-extended lugs, a flange formed at each side of the peripheral portion of the wheel, the said flanges being continuations of the outer rings and provided with openings, and rolling surfaces located between the said flanges, as and for the purpose specified. 3rd. A sprocket-wheel, provided with peripheral flanges, cleats arranged in groups upon the periphery of the wheel between the flanges, and a ball held to revolve within each group of cleats, as and for the purpose set forth. 4th. A sprocket-chain, the links whereof are provided with teeth, the said teeth having their centres at one side of the centre of the links, of which they form a part, as and for the purpose specified. 5th. A sprocket-chain, consisting of a series of links, each alternate link being double and the connecting links single, each of said links being provided with a tooth formed upon its inner face and having its side edges concaved, the said teeth having their centres at one side of the centre of the link to which they respectively belong, as and for the purpose specified. 6th. The combination, with a sprocket-wheel, having balls mounted to revolve on its periphery, and flanges extending beyond the periphery of the wheel at its sides, the said balls being located between said flanges, of a chain, the links whereof are provided with teeth at their inner edges, the said teeth having their side edges concaved, and the centre of said teeth being at one side of the centre of the links to which the teeth belong, as and for the purpose set forth. 7th. The combination, with a sprocket-wheel having spherical surfaces mounted to revolve on its periphery,

of a chain, the links whereof are provided with teeth at their inner edges, the centre of the said teeth being at one side of the centre of the links to which the teeth belong, whereby alternating pockets of different dimensions are formed, the said pockets being adapted for the reception of the spherical rotating surfaces of the wheel, as and for the purpose set forth. 8th. The combination, with a sprocket-wheel having spherical objects mounted to turn upon its periphery, and flanges extending beyond the periphery of the wheel at its sides, between which flanges the said spherical objects are located, the said flanges being provided with openings, of a chain, the links whereof are provided with teeth at their inner edges, the centre of the said teeth being at one side of the centre of the links to which the teeth belong, whereby alternating pockets of different dimensions are formed, the said pockets being adapted for the reception of the spherical rotating surfaces of the wheel, as and for the purpose specified. 9th. A sprocket-wheel, having bearings formed upon the periphery, and balls mounted to revolve freely in the bearings, the said bearings permitting of the exposure of a major portion of the balls for engagement with the teeth of a sprocket-chain, whereby the balls are freely revolved, as and for the purpose specified. 10th. The combination with a sprocket-wheel, having bearings formed upon its periphery, and balls mounted to revolve freely in the bearings, of a sprocket-chain consisting of a series of links, each provided with a tooth upon its inner face, the said teeth having their centres at one side of the centre of the link to which they respectively belong, the major portion of the said balls being exposed for engagement with the teeth of said chain, whereby the said balls revolve freely when the chain is moved, as and for the purpose set forth. 11th. A sprocket-wheel, provided with cleats arranged in groups upon the periphery of the wheel, and a ball held to revolve within each group of cleats, the said cleats being arranged to permit of the exposure of the major portion of the said balls for engagement with a sprocket-chain, as and for the purpose set forth.

No. 56,541. Bicycle. (Bicycle.)



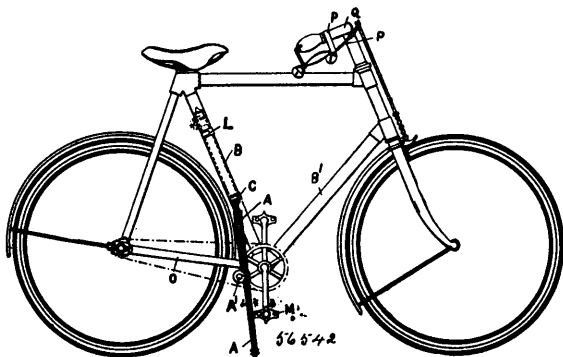
Francis Henry Richards, Hartford, Connecticut, U.S.A., 8th July, 1897; 6 years. (Filed 25th May, 1897.)

Claim.—1st. In a bicycle, the combination of a casing, a transverse gear shaft, two intermeshing gears, a carrier for one of said gears, and having screw-threads on its exterior face adapted to engage similar screw-threads on the interior of the casing and adjustable relatively to said casing, and with its gear, toward and from the other gear, and a shaft connected with said carrier-gear, and laterally movable relatively thereto. 2nd. In a bicycle, the combination of a pedal-shaft and a driving wheel, two sets of gears, one set in connection with the pedal-shaft, and the other set in connection with the driving-wheel, a casing for each set of gears, a carrier for one gear of each set, and having screw-threads on its exterior face adapted to engage similar threads on the interior of its respective casing, and adjustable relatively to said casing, one gear of each set of gears being journaled in its respective carrier, and a rigid driving-shaft between and connecting said gears, and laterally movable relatively thereto. 3rd. In a bicycle, the combination of a casing, a transverse shaft therein carrying a gear, a carrier within said casing, having screw-threads on its exterior face and engaging screw-threads on the interior of the casing, and longitudinally adjustable relatively to said casing, a side-shaft gear having a hub extending entirely through said adjustable carrier and longitudinally adjustable therewith, and having a cup-shaped end, antifriction-bearings intermedi-

ate of said hub and carrier, and a side shaft extending into the end of said hub and movable relatively thereto. In a bicycle, the combination of a casing having an annular open end, and also having interior screw-threads, a transverse shaft carrying a gear, a side-shaft gear meshing with and adjustable toward and from said transverse shaft-gear, and having an elongated hub, a carrier surrounding said hub, and having screw-threads on its exterior face engaging with the screw-threads of the casing, ball bearings intermediate of said hub and carrier, a side shaft connected with, and laterally movable within and relatively to said hub, a tubular holder for the said side shaft in juxtaposition with said casing, and a clamping-collar connecting said holder and casing, and rotatable with respect thereto, and having internal differential holding means engaging corresponding external differential holding means upon the holder and casing, respectively, for securing said holder and tubular casing removably together. 5th. In a bicycle, the combination of a casing, a transverse shaft, a gear upon said shaft, a side-shaft gear, a carrier for said side-shaft gear, adjustably mounted in said casing, a side shaft connected with said side-shaft gear, and laterally movable relatively to and at its point of connection therewith, a tubular holder inclosing said side shaft, and constituting a side bar of the frame, and a clamping collar in connection with, and adapted for adjusting and locking, said holder and casing relatively to one another, longitudinally. 6th. In a bicycle, the combination of a casing having an annular open end, and having interior screw-threads, a transverse gear-shaft, an exteriorly-threaded side-shaft gear-carrier engaging the interiorly-threaded casing, and longitudinally adjustable relatively thereto, a tubular holder for inclosing the side shaft, and in juxtaposition with said casing, and a clamping-collar connecting said holder and casing, and rotatable relatively thereto, and having internal differential holding means upon the holder and casing, respectively, said collar being rotatively movable, longitudinally, with respect to one of said parts, but fixed longitudinally with respect to the other part. 7th. In a bicycle, the combination of a casing, a transverse shaft having a gear, a side-shaft gear, a side shaft connected with said side-shaft gear, and movable relatively thereto, a tubular holder inclosing said side shaft, and constituting a side bar of the frame, and having an enlarged end having its free edge in parallelism with, and engaging the free edge of the casing, and removable means encircling said enlarged end of the holder and casing and rotatable relatively thereto, for securing said holder and casing removably and adjustably together. 8th. In a bicycle, the combination of a casing having interior screw-threads, an adjustable gear-carrier having screw-threads on its exterior, and adapted to engage the screw-threads of the casing, and having a longitudinal adjustment relatively to said casing, a tubular side-shaft holder, and a clamping-collar connecting said holder and casing, and rotatable relatively thereto, and having internal differential holding means engaging corresponding differential holding means upon the holder and casing, for securing said holder and casing removably and adjustably together.

No. 56,542. Bicycle Rest or Support.

(Support et appui pour bicycles.)



Donald Gunn Ross, Dundee, Natal, 8th July, 1897; 6 years. (Filed 29th September, 1896.)

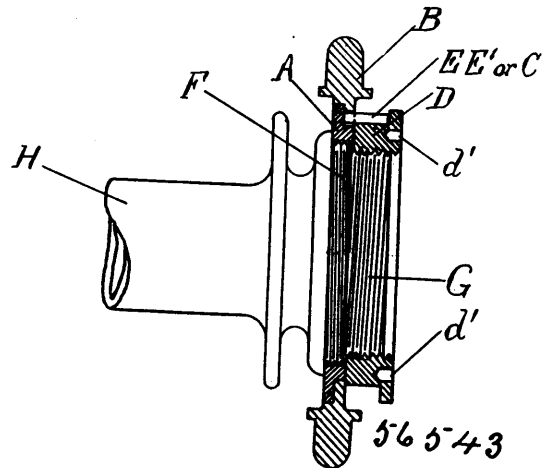
Claim.—1st. A stand for bicycles, consisting of a telescopic leg hinged or coupled to the bicycle frame, and a coupling hook N hinged to the leg and capable of engaging the thrust rod or other part of the bicycle frame, whereby the telescopic leg can be held rigid at a given angle with the bicycle and form a rigid support therefor when standing, substantially as described. 2nd. A leg for supporting bicycles when standing, comprising an outer tube *a* and one or more inner tubes *a'* arranged telescopically, in combination with means such as screw *A* and lugs *A'* for clamping the inner and outer tubes together substantially as and for the purpose described.

No. 56,543. Sprocket-Wheel for Bicycles.

(Roue dentée pour bicycles.)

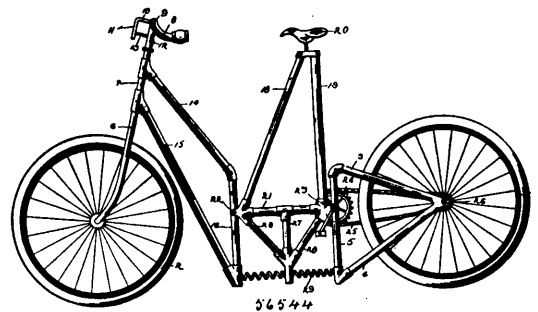
Edgar Descum Misner, Toronto, Ontario, Canada, 8th July, 1897; 6 years. (Filed 11th February, 1897.)

Claim.—1st. In a bicycle hub on which are systems of screw-threads intended for a sprocket-wheel and its locking nut, the apply-



ing to one of these systems of screw-threads a detachable sprocket-wheel centre *A* upon which a sprocket wheel may be placed, substantially as described. 2nd. In a bicycle hub on which are systems of screw-threads intended for a sprocket-wheel and its locking nut, the applying to one of these systems of a detachable sprocket-wheel centre *A* upon which a sprocket-wheel may be placed, the detachable sprocket-wheel centre *A* having a notched flange, the notches *a*¹, *a*², *a*³, capable of receiving keys or the ends of a ring so as to furnish a driving connection between the sprocket-wheel and its detachable centre, all substantially as hereinbefore set forth and described with reference to the accompanying drawings.

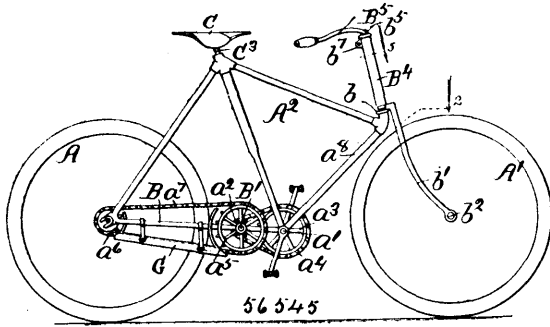
No. 56,544. Bicycle. (Bicycle.)



Daniel Carpenter, Goshen, New York, U.S.A., 8th July, 1897; 6 years. (Filed 1st May, 1897.)

Claim.—1st. In a wheeled vehicle, the combination with front and rear frames in which the carrying-wheels are mounted, of an intermediate frame pivotally connected thereto on horizontal axis and a spring interposed between the front and rear frames and connected to the intermediate frame, substantially as and for the purpose specified. 2nd. In a wheeled vehicle, the combination with separate and independently movable front and rear frames, of an intermediate frame pivotally connected thereto, on horizontal axis, a seat supported on said intermediate frame, and one or more springs connecting the front and rear frames and the intermediate frame, substantially as and for the purpose specified. 3rd. In a bicycle, the combination with the front and rear wheels, of separate and independently movable frames in which said wheels are journaled, said frames comprising substantially vertical bars, a seat frame arranged between said wheel frame and pivotally connected thereto on horizontal axis and also provided with a depending portion lying intermediate the vertical bars of the wheel frames, and one or more springs interposed between the wheel frames and the seat frames, substantially as described. 4th. In a foot propelled vehicle, the combination with a handle bar stem, of a handle bar pivotally connected thereto on a horizontal axis and provided with an extension projecting in front of said stem and a spring interposed between said stem and extension and connected to said parts, substantially as and for the purpose specified. 5th. In a bicycle, the combination with an oscillatory handle bar, of a spring for cushioning the movement of said handle bar, substantially as described. 6th. In a bicycle, the machine frame composed of three sections, the end sections being hinged connected to the intermediate section, and one or more springs connecting the several sections and permitting the same to oscillate relatively to each other, substantially as described.

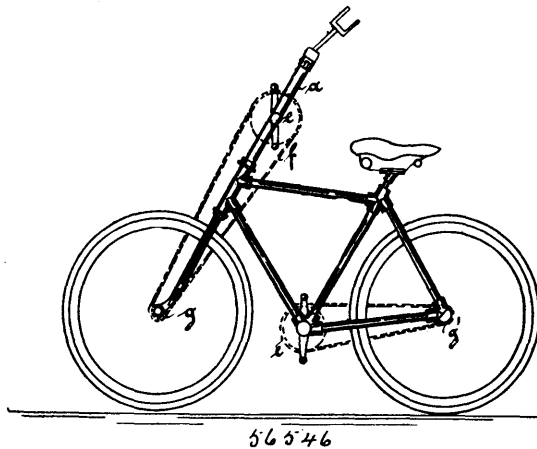
No. 56,545. Bicycle. (Bicycle.)



Jesse Thornton Hall, Chicago, Illinois, U.S.A., 8th July, 1897; 6 years. (Filed 7th May, 1897.)

Claim.—1st. In a bicycle, the combination with the back-forks, of a shaft, journaled therein, a small sprocket-wheel, mounted in the centre of said shaft, the crank-axle, a large sprocket-wheel, mounted on said axle in line of the smaller sprocket and both of said sprockets being in line with the tracking-wheels, the large sprocket, mounted on one end of said shaft, the rear-wheel axle, the small sprocket, mounted thereon in line with the larger sprocket last mentioned, and the chain, connecting the series of sprockets, substantially as described. 2nd. In a bicycle, the combination with a steering-post, forming an integral part of the lower main frame-tube and provided with a bearing-shoulder, the tube or sleeve, having the fork-members formed thereon and adjustably fitted on said steering-post, the tubular handle-bar stem, provided with a slot in the upper end thereof and having lugs, and the clamping-bolt inserted through said lugs, substantially as described. 3rd. In a bicycle, the saddle-structure, comprising the elongated frame, provided in the centre with a drop-part, the steel sheet, covering the wider rear part of the frame, the flat spring, C², connecting the rear and front ends of the frame, the flat transverse spring, C⁴, the flat spring-plate, C⁵, the companion spring-plates, C⁶, C⁷, and the companion plate-springs, C⁸, C⁹, substantially as described. 4th. In a bicycle, the combination with a handle-bar, of a handle-bar stem, and a spring, interposed between and connecting said bar and stem, substantially as described. 5th. In a bicycle, the pedal-structure, made from a single piece and consisting of the central body-part, the companion bearing or foot-plates, divided from the body-part by a space so as to impart a spring action to the foot-plates, substantially as described. 6th. In a bicycle, a link driving-chain, consisting of a series of links, closed on their outer or back side and the ends overlapping each other, the pivot-pins connecting said links, and the friction-rollers, mounted on said pivot-pins, substantially as described.

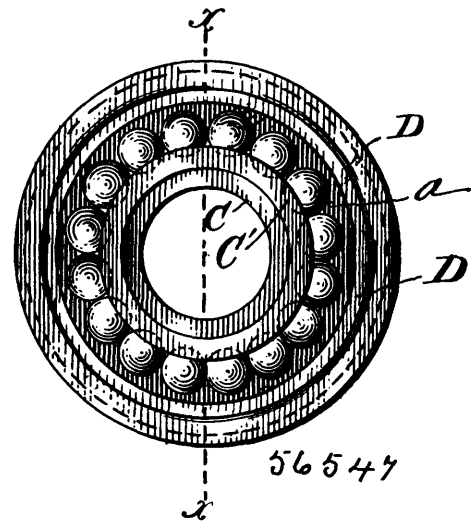
No. 56,546. Bicycle. (Bicycle.)



Auguste Marie Joseph Keller, Colmar, Germany, 8th July, 1897; 6 years. (Filed 7th May, 1897.)

Claim.—A bicycle wherein, for utilization of the arm action of the rider, an axle c, provided with hand cranks d is journaled in the front frame-bar, and transmits its movement through gear wheels e, chain f and gear wheel g to the front wheel axle, while, for support of the body and steering of the bicycle, the cross bar h mounted on the prolonged frame bar a carries two crotches t, for embracing the shoulders.

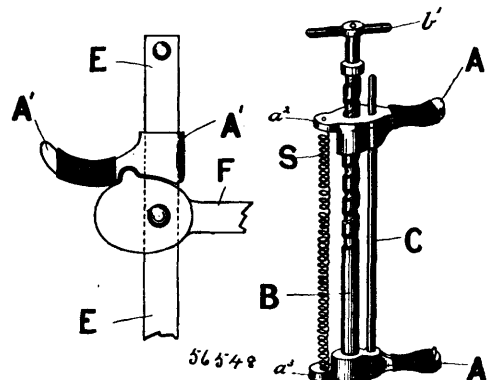
No. 56,547. Ball Bearing. (Coussinet à boules.)



John J. Naregang, Leesport, Pennsylvania, U.S.A., 8th July, 1897 6 years. (Filed 10th May, 1897.)

Claim.—1st. The herein-described improved ball-bearing, comprising a cup-like member, a bearing-cone located within said cup-like member, an annular space being formed between the periphery of the latter and the inner wall of said cup-like member, balls adapted to travel in said annular space, a disc of translucent material adapted to cover said annular space, and a ring adapted to engage said cup-like member and secure said disc in position, as and for the purpose set forth. 2nd. The herein-described improved ball-bearing, comprising a cup-like member, a bearing-cone located within said cup-like member and having an annular bead, an annular space being formed between said bead and the inner periphery of said cup-like member, balls adapted to travel in said annular space, a disc of translucent material adapted to cover said annular space, and a ring adapted to receive said disc and bind the same against the rear face of said cup-like member and the bead of said cone, as set forth. 3rd. The herein-described improved ball-bearing, comprising a cup-like member having an annular threaded flange, a bearing-cone located within said cup-like member and having an annular bead, an annular space being formed between said bead and the inner periphery of said cup-like member, balls adapted to travel in said annular space, a disc of translucent material adapted to cover said annular space, and a threaded ring adapted to engage the threaded flange of said cup-like member and provided with a ledge or flange adapted to receive said translucent disc, substantially as and for the purpose set forth.

No. 56,548. Cycle Tool. (Outil de cycles.)

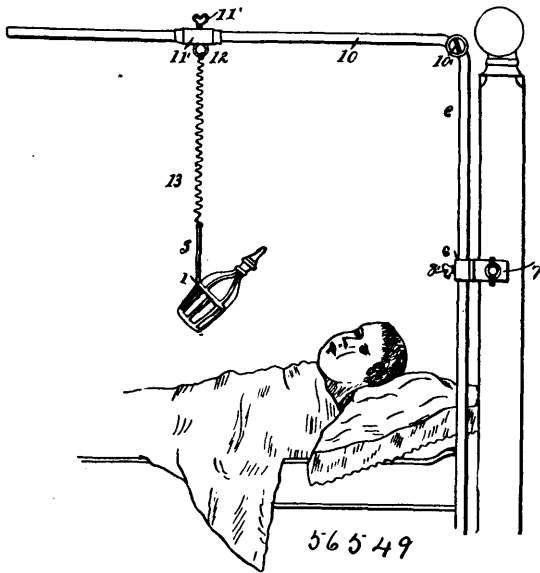


John Bower Smith, Small Heath, Birmingham, Warwick, England, 8th July, 1897; 6 years. (Filed 10th May, 1897.)

Claim.—1st. The improved appliance for expanding and opening the forks of a velocipede, consisting essentially of two jaws or horns operated by a screw motion or by the action of a lever or their equivalents in the manner and for the purpose substantially as hereinbefore described and as shown upon the accompanying sheet of drawings. 2nd. In an appliance for opening the forks of a velocipede mounting two jaws or horns upon the ends of a screwed bar so

that when the said bars revolved the jaws or horns are opened in the manner and for the purpose substantially as herein set forth and as shown upon the accompanying sheet of drawings. 3rd. In an appliance for opening the forks of a velocipede mounting the movable jaw upon one end of a rod, the other end of which is hinged to a lever hinged to the appliance and operating the jaws in the manner substantially as herein set forth and as shown upon the accompanying sheet of drawings. 4th. In an appliance for opening the forks of a velocipede forming the fixed jaw or horn on one end of a bar and hinging the movable jaw or horn to the opposite end of the said bar, the said movable jaw or horn forming part of the lever which operates the same, substantially as herein set forth and as shown upon the drawings.

No. 56,549. Holder for Nursing Bottles. (Biberon.)



Joshua W. Sykes, Detroit, Michigan, U.S.A., 8th July, 1897; 6 years. (Filed 18th March, 1897.)

Claim.—1st. As a new article of manufacture, a bottle case consisting of an encircling band, the bales depending therefrom, the arm pivoted thereto, and extending upward, means for locking the upper ends of said arm about the neck of a bottle, when said bottle is supported by said bales, and the hanger pivoted to said encircling band, for the purpose set forth. 2nd. In a supporting device, the combination of a clamp consisting of an angle plate having a thumb-screw adapted to be screwed through one of its sides, soft material buffers secured to said screw and to the opposite inner face of said clamp, the sleeves formed upon one side of said clamp, the rod adapted to extend through said sleeve and adapted to be secured therein by a thumb-screw, the arm extending at an angle to said rod, means for raising, lowering and locking said arm with its relation to said rod, the sleeve adapted to be moved longitudinally upon said arm, means for securing said sleeve in the desired position, and the coiled wire spring depending from said sleeve, as set forth. 3rd. In a holder for nursing bottles, the combination of the basket, composed of the encircling band 1¹, the bales 2, depending therefrom, the arms 3, 3¹, pivoted thereto, and projecting upward, said arms having means thereon by which they may be locked together to maintain a bottle in the basket formed by said bales, the hanger 5 and the eye 5¹, the clamp 6, the rod 9, extending therefrom, the arm 10 extending from said rod and pivoted thereto by a locking device, the sleeve 11, adapted to slide upon said arm, the coiled wire spring depending therefrom and adapted to engage the eye 5¹ of said hanger, substantially as and for the purpose set forth.

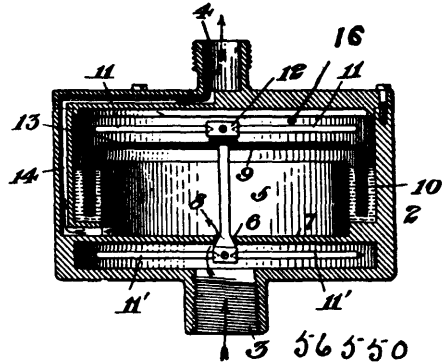
No. 56,550. Gas Regulating Apparatus.

(Appareil regulateur pour le gaz.)

The Connelly-Critchlow Co., assignee of John Storer Connelly, both of Titusville, Pennsylvania, U.S.A., 8th July, 1897; 6 years. (Filed 24th April, 1897.)

Claim.—1st. In a gas regulator, the combination of a regulating chamber having a port, a float or diaphragm, a valve controlling the port and having a stem extending from the float or diaphragm, and guides consisting of a set of rods extending laterally from the stem on the outer side of the float or diaphragm, and a second set of rods extending laterally from the stem at the outer side of the valve, both sets of rods extending to and bearing in sockets in the case of the regulator, substantially as described. 2nd. In a gas regulator, the combination of a regulating chamber, having a port,

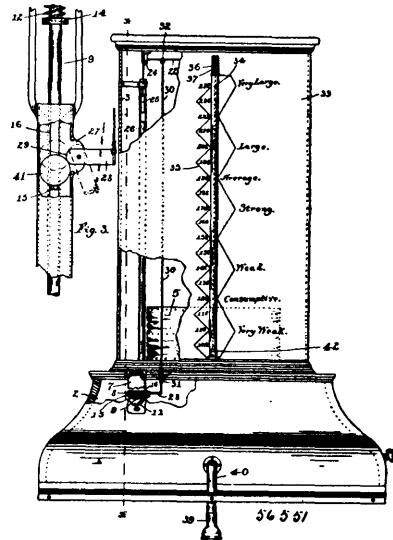
a float or diaphragm, a valve controlling the port and having a stem extending from the float or diaphragm, and guides consisting of a



set of rods extending laterally from the stem on the outer side of the float or diaphragm, and a second set of rods extending laterally from the stem at the outer side of the valve, and radially adjustable stops against which the outer ends of the said rods bear, substantially as described.

No. 56,551. Coin Released Lung Testing Apparatus.

(Appareil à faire l'épreuve des poumons.)

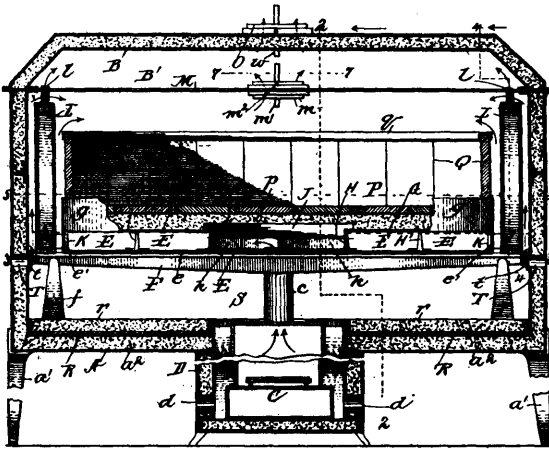


Isaac A. Grant, assignee of William Yoerg, both of St. Paul, Minnesota, U.S.A., 8th July, 1897; 6 years. (Filed 7th June, 1897.)

Claim.—1st. In an apparatus of the class described, in combination the bellows, the connected tube for inflating the same, the exhaust valve, the counterbalancing weight serving when said valve is open to retain it in open position, the lever for lifting said weight, the means for actuating said lever operative only in conjunction with an interposed coin, whereby when a coin is dropped into the apparatus the counterbalancing weight may be lifted and the valve allowed to close in position for the apparatus to be used. 2nd. In an apparatus of the class described, in combination the bellows, its gravity exhaust valve, its counterbalancing weight, the relative weight of said valve and weight being such that neither can move the other from adjusted positions, and the coin-controlled means for lifting said weight to permit closure of said valve. 3rd. In a coin-controlled apparatus of the class described, the combination with the bellows and the connected tube and mouthpiece, of the exhaust-valve for said bellows, the counterbalancing weight, and the cord connecting the same with the valve, the coin chute and runway, the lever pivoted therein connected with the valve cord, and the plunger adapted to be actuated by said lever, to actuate the same and close the valve. 4th. In a coin-controlled apparatus of the class described, the combination with the bellows and connected tube and mouthpiece, of the exhaust valve and the connected balancing weight, the connected mechanism adapted to be actuated by the coin to lift said weight, whereby the valve will drop to closed position as the weight falls upon the releasing of said actuating mechanism. 5th. In a

coin-controlled apparatus of the class described, the combination with the bellows and the connected tube and mouthpiece, of the pivoted valve arranged upon the top of said bellows and adapted to close the exhaust opening of the same, the counterbalancing weight having cord connection with said valve, the connected mechanism adapted to be actuated by the coin to lift the weight when said valve stands in open position, said valve and weight simultaneously dropping upon the release of said mechanism so as to close the valve. 6th. In an apparatus of the class described, in combination the expandible air receiver, the means for inflating the same, the exhaust valve, its counterbalancing weight, said valve and weight being so adjusted that neither can move the other from adjusted positions, and said valve being automatically opened by the collapsing of said air receiver, and being maintained in open position by its counterbalancing weight, and the coin-controlled mechanism for releasing said valve of the restraint of said weight so as to permit said valve to close, thereby placing the apparatus in position for use. 7th. In an apparatus of the class described, the combination with the expandible air receiver, of the gravity exhaust valve for the same, its counterbalancing weight, their connecting cord, the pair of supporting and carrying sheaves for said cord, said weight and valve being so arranged that neither can lift the other from adjusted position, the lever connected to said carrying cord between said sheaves and adapted to pull upon the same to lift said weight when the valve is in open position, and when released permitting the valve to close, and the coin-controlled mechanism for operating said lever. 8th. In an apparatus of the class described, the combination with the expandible air receiver, of the scale indicating the degree of expansion of said receiver, the transparent vertical tube adjacent said scale, the weight working freely in said tube, and the supporting cord connecting said weight with said receiver, whereby the expansion and contraction of said receiver moves said weight in said tube.

No. 56,552. Portable Bake Oven. (Four portatif.)



56552

Jerome E. Ludwick and Harrison H. Amborn, both of Chicago, Illinois, U.S.A., 8th July, 1897; 6 years. (Filed 7th June, 1896.)

Claim.—1st. In a portable bake oven, the combination with a casing, of a pan within the casing and supported above the bottom thereof, a layer of sand within the pan, a flooring of tiling laid upon the sand to form the baking-hearth, and a wall of tiling surrounding such hearth and being spaced apart from the side and rear walls of the casing and from the top of the baking-chamber. 2nd. In a portable bake oven, the combination with a shell or casing having its walls packed with non-heat-conducting material, of a furnace enclosed within such casing, a layer of sand upon the bottom of the casing, a pan supported within the pan above the bottom of the casing, a layer of sand within such pan, a hearth of tiling laid upon such last named layer of sand, a wall of tiling surrounding such hearth and being spaced apart from the side walls of the casing and from the top of the baking-chamber. 3rd. In a portable bake oven, the combination with a shell or casing having its walls packed with non-heat-conducting material, of a furnace within the shell or casing, a hearth supported within the shell or casing above its bottom, a wall surrounding the hearth so as to form a baking-chamber and being spaced apart from the side wall of the shell or casing, metal casings forming flue chambers and being interposed between the walls of the baking-chamber and the side walls of the shell or casing and spaced apart from each, flues leading from the furnaces to the flue chambers, and discharge flues leading from the flue chambers. 4th. In a portable bake oven, the combination with a shell or casing, of a furnace within the shell or casing, a horizontal metal casing forming a flue chamber and being supported within the shell or casing and above its bottom and having its edges spaced apart from the side walls thereof, metal casings supported between the edges of said horizontal flue chamber and the side walls of the shell or

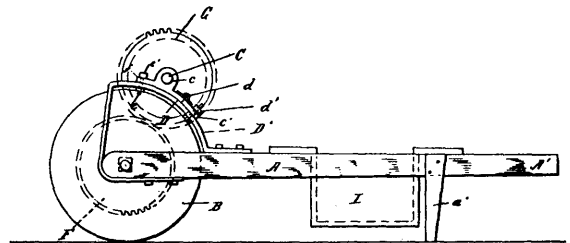
casing and being spaced apart from both and extending above the latter, a baking-hearth supported upon the horizontal casing, walls surrounding the hearth and being spaced apart from the side flue casing, a flue passage leading from the furnace to the horizontal flue chamber, flue passages connecting the horizontal flue chamber with the upright flue chambers and discharge flues leading from said upright flue chambers. 5th. In a portable bake oven, the combination with a shell or casing having its walls packed with a non-heat-conducting material, of a furnace chamber below and opening to the interior of the shell or casing, a baking-chamber formed within the shell or casing and having its side walls spaced apart from the side walls thereof, flue chambers located between the walls of the baking-chamber and of the shell or casing and being substantially co-extensive with the former, flues leading from the furnace to said flue chambers and discharge flues leading therefrom, and air ports through the walls of the furnace chamber and through the side walls of the shell or casing at the foot of the flue chambers.

No. 56,553. Plant Fertilizer. (Engrais pour plantes.)

Charles Halford Thompson, F.R.H.S., Teignmouth, England, 8th July, 1897; 6 years. (Filed 9th June, 1897.)

Claim.—1st. The process of manufacturing a fertilized material, which process consists in first dissolving in water phosphoric acid, potash (Pearl-ash) and nitrate of soda, adding thereto a mixture of soot, gypsum and bone-meal with water, then boiling therein peat-moss or other suitable material and then straining and fermenting the product. 2nd. The process of manufacturing a liquid fertilizing material, which process consists in boiling together soot, gypsum, bone-meal, phosphoric acid, potash (Pearl-ash) and nitrate of soda, removing the liquor from the boiler and adding to it potash (Pearl-ash), yeast, and sugar, and fermenting it, substantially as herein-before described. 3rd. In the manufacture of a liquid fertilizing material of the kind above referred to, the method of expediting the fermentation of the liquid containing gypsum as an ingredient, by adding sugar or saccharine matter thereto, substantially as described. 4th. As an article of manufacture, a fertilized material consisting of suitable spongy or fibrous substance such as peat-moss, the fibres of which are impregnated or saturated with a fertilizing composition containing nitrate of soda, a liquid and gypsum as ingredients, and which is fermented, substantially as described. 5th. As an article of manufacture, a fertilized material consisting of suitable spongy or fibrous substance such as peat-moss, the fibres of which are impregnated or saturated with a fertilizing composition containing potash (Pearl-ash), a liquid and gypsum as ingredients, and which is fermented, substantially as described. 6th. As an article of manufacture, a fertilized material consisting of suitable spongy or fibrous material such as peat-moss, the fibres of which are impregnated or saturated with a fertilizing composition, consisting of dilute phosphoric acid, soot, bone-meal, gypsum and nitrate of soda, and which is fermented, substantially as described. 7th. As an article of manufacture, a fertilized material consisting of suitable spongy or fibrous material such as peat-moss, the fibres of which are impregnated or saturated with a fertilizing composition consisting of dilute phosphoric acid, soot, bone-meal, gypsum, nitrate of soda and potash (Pearl-ash), and which is fermented, substantially as described. 8th. As an article of manufacture, a liquid consisting of a weak solution of phosphoric acid in which has been boiled a fertilizing composition consisting of soot, bone-meal, gypsum and nitrate of soda, and which has afterwards been fermented with yeast with the addition of sugar or saccharine matter, substantially as described. 9th. As an article of manufacture, a liquid consisting of a weak solution of phosphoric acid, in which has been boiled a fertilizing composition consisting of soot, bone-meal, gypsum, nitrate of soda and potash (Pearl-ash), and which has afterwards been fermented with yeast with the addition of sugar or saccharine matter, substantially as described.

No. 56,554. Machine for Distributing Paris Green and Lead Plaster. (Machine pour la distribution de vert de paris.)



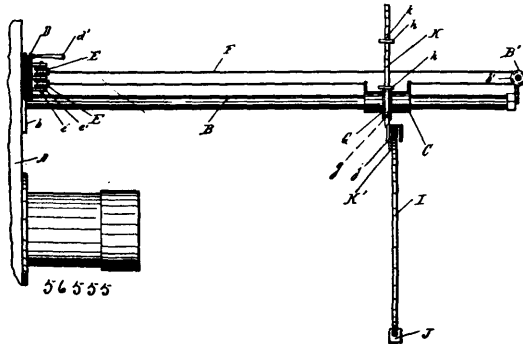
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Abraham Whitfield Steeves, Gagetown, New Brunswick, 8th July, 1897; 6 years. (Filed 9th June, 1897.)

Claim.—1st. In a distributing machine, the combination, with a frame provided with a ground wheel, of a perforated drum for holding the material to be distributed, a shaft and bearings for supporting the said drum, and driving devices for revolving the said

drum from the ground wheel, substantially as set forth. 2nd. In a distributing machine, the combination, with a frame provided with a ground wheel, of supports arranged concentric with the ground wheel, of bearings adjustable upon the said supports, a shaft journaled in the said bearings, a perforated drum carried by the said shaft, and driving devices connecting the said shaft and ground wheel, substantially as set forth. 3rd. In a distributing machine, the combination, with a frame, a shaft carried by the said frame, and means for revolving the said shaft as the machine is drawn along, of a perforated drum carried by the said shaft and provided with slidable rings for closing its perforations, substantially as set forth.

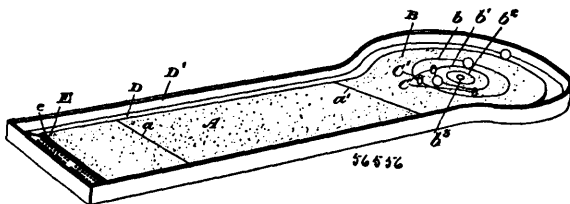
No. 56,555. Vignetting Apparatus. (Appareil à vignette.)



Ernest Arthur Harris, Edmund James Eyres, both of Victoria, B.C., Canada, 8th July, 1897; 6 years. (Filed 2th June, 1897.)

Claim.—1st. In a vignetting apparatus, the combination, with a substantially horizontal support, of a vignetting disc carried by the said support, and means for sliding the said disc longitudinally of the support, substantially as set forth. 2nd. In a vignetting apparatus, the combination, with a substantially horizontal support, of a vignetting disc carried by the said support, and means for adjusting the position of the said disc vertically, substantially as set forth. 3rd. In a vignetting apparatus, the combination, with a substantially horizontal support, of a sleeve slidable and revoluble on the said support, a vignetting disc pivotally supported from the said sleeve, a flexible connection attached to the said sleeve, and sheaves arranged at the opposite ends of the said support and carrying the said flexible connection, whereby the said disc is slid back and forth substantially as set forth. 4th. In a vignetting apparatus, the combination, with a substantially horizontal support, and a sleeve slidable thereon and provided with laterally projecting knife-edges; of a frame pivoted on the said knife-edges and provided with cross-bars, a vignetting disc, and a plate supporting the said disc and provided with notched spring bars slidable in holes in the said cross-bars, substantially as set forth.

No. 56,556. Parlour Game. (Jeu.)



Howard Ashton Felt, Oshawa, Ontario, Canada, 8th July, 1897; 6 years. (Filed 27th April, 1897.)

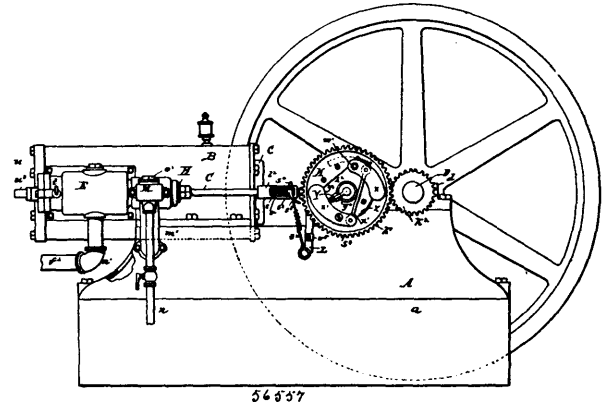
Claim.—1st. A new parlour game comprising a cloth covered board with starting line at the playing end, hog line, circular end with outer circle, intermediate circle and inner circle and centre spot and the pegs C C and centre front peg C¹ all arranged as and for the purpose specified. 2nd. A new parlour game comprising a cloth covered board with starting line at the playing end, hog line, circular end with outer circle, intermediate circle and inner circle and centre spot and the pegs C C and centre front peg C¹ and the marking holes E and pegs e all arranged, as and for the purpose specified.

No. 56,557. Gas Engine. (Machine à gaz.)

Fred Compton Olin, Buffalo, New York, U.S.A., 9th July, 1897; 6 years. (Filed 27th April, 1897.)

Claim.—1st. The combination with the cylinder and the piston, of a valve chamber connected with the cylinder, an exhaust chamber connected with the valve chamber, a hollow valve stem arranged in said valve and exhaust chambers and communicating with a fuel supply, an exhaust valve mounted on the inner end of the valve stem, actuating mechanism whereby the hollow valve stem is moved

inwardly for opening the exhaust valve and outwardly for closing the same, a fuel valve adapted to move toward and from the valve

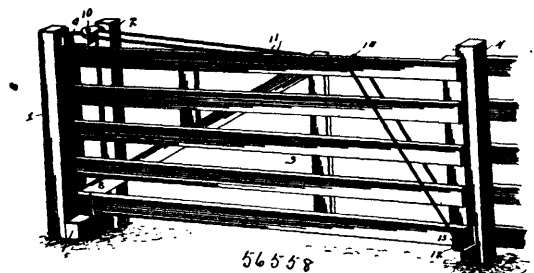


stem and actuating mechanism whereby the fuel valve is moved inwardly for opening the same and outwardly for closing the same, substantially as set forth. 2nd. The combination with the cylinder and the piston, of a valve chamber connected with the cylinder, an exhaust chamber connected with the valve chamber by an opening provided with by-passes, a hollow valve stem guided in said opening, and an exhaust valve mounted on said valve stem, substantially as set forth. 3rd. The combination with the cylinder and the piston, of an exhaust chamber connected with the cylinder, a hollow valve stem arranged in said chamber and communicating with the cylinder and with a fuel supply, and an exhaust valve loosely mounted on said stem, substantially as set forth. 4th. The combination with the cylinder and the piston, of a valve chamber connecting with the cylinder, an exhaust chamber connecting with the valve chamber, a hollow valve stem arranged in the valve and exhaust chamber, a valve ring arranged on the valve stem within the valve chamber and provided on its rear side with an exhaust valve face which is adapted to bear against an exhaust valve seat surrounding the valve stem, and a fuel valve adapted to bear against a fuel valve seat formed on the front side of the valve ring, substantially as set forth. 5th. The combination with the cylinder and the piston, of a valve chamber connecting with the cylinder, an exhaust chamber connecting with the valve chamber, a hollow valve stem arranged in the valve and exhaust chambers and provided with an external annular flange, a valve ring surrounding the external flange and having an exhaust valve face on its rear side which is adapted to bear against an exhaust valve seat surrounding the valve stem, an external flange formed on the valve stem, an internal flange formed on the valve ring and bearing against the rear side of the external flange of the valve stem, a retaining ring secured to the inner side of the valve ring and arranged in front of the external flange and a fuel valve adapted to bear against a fuel valve seat formed on the front side of the valve ring, substantially as set forth. 6th. The combination with the cylinder and the piston, of an exhaust chamber connected with said cylinder, a hollow valve stem arranged in said chamber and provided with an exhaust valve, actuating mechanism whereby the valve stem is moved inwardly for opening the exhaust valve and outwardly for closing the same, a fuel valve which is adapted to move toward and from a valve seat on the valve stem and capable of moving inwardly with the valve stem without opening the fuel passage during the operation of opening the exhaust and a yielding holding finger or rod adapted to bear against the fuel valve and hold the same against its seat during the inward movement of the valve stem, substantially as set forth. 7th. The combination with the cylinder and the piston, of a valve chamber connected with the cylinder and provided on one side with a head, an exhaust chamber connected with the opposite side of the valve chamber, a reciprocating hollow valve stem arranged in said valve and exhaust chambers and provided with an exhaust valve, a valve rod arranged within the hollow valve stem and provided with a fuel valve adapted to bear against a seat on the hollow valve stem, a spring engaging with said valve rod for holding the fuel valve yieldingly against its seat, a separate holding finger or rod guided in said head and adapted to bear against the fuel valve and a spring whereby the holding finger or rod is yieldingly held in its projected position, substantially as set forth. 8th. The combination with the cylinder and the piston, of an exhaust chamber connected with the cylinder, a hollow valve stem arranged in said chamber and connected with a fuel supply, an exhaust valve mounted on said stem, an inwardly opening check valve arranged in the fuel supply and an inwardly opening fuel valve arranged on the valve stem between the check valve and cylinder, said check and fuel valves being adapted to be opened inwardly by the suction of the piston, substantially as set forth. 9th. The combination with the cylinder and the piston, of an exhaust chamber connecting with the cylinder, a hollow valve stem arranged in said chamber and carrying an exhaust valve, a check valve chamber communicating with the hollow valve stem, an air supply pipe opening into the check valve chamber and provided

with a valve seat, a gas supply pipe opening into the check valve chamber and provided with a valve seat and a check valve adapted to bear upon the seats of the air and gas supply pipes, substantially as set forth. 10th. The combination with the cylinder and the piston, of a chest provided with a valve chamber connected with the cylinder and an exhaust chamber connecting with the valve chamber, a valve stem arranged in said valve and exhaust chambers and carrying an exhaust valve, a stationary contact arranged within the valve chamber and connected with one terminal of an electric generator, and a shifting rod arranged in the valve stem and provided with a movable contact which forms the other terminal of the electric generator and which is adapted to bear against the stationary contact, substantially as set forth. 11th. The combination with the cylinder and the piston, of a chest provided with a valve chamber connected with the cylinder and an exhaust chamber connecting with the valve chamber, a longitudinally reciprocating valve stem arranged in said valve and exhaust chambers and carrying an exhaust valve, a stationary contact arranged within the valve chamber and connected with one terminal of an electrical generator, a shifting rod arranged in the valve stem and having a longitudinally reciprocating movement with said valve stem and a rotary movement independent of said stem, a movable contact secured to the shifting rod adjacent to the stationary contact and connected with the opposite terminal of the electric generator, a rock lever secured to said shifting rod, a spring connected with said lever for turning the shifting rod in one direction and holding the movable contact in engagement with the stationary contact and a cam adapted to engage with said rock lever for turning the shifting rod in the opposite direction for disengaging the movable contact with the stationary contact, substantially as set forth. 12th. The combination with the cylinder, the piston and the exhaust valve, of a roller or bearing piece connected with the exhaust valve, an exhaust cam engaging with said roller or bearing piece and having a salient portion which opens the exhaust valve and a receding portion which permits the exhaust valve to be closed, a rider disc arranged adjacent to the exhaust cam, a movable regulator pawl adapted to engage with the face of the rider disc for holding the roller or bearing piece out of engagement with the receding portion of the exhaust cam and a movable trip cam whereby the regulator pawl is disengaged from the face of the rider disc for permitting the roller or bearing piece to engage with the receding portion of the exhaust cam and closing the exhaust valve, substantially as set forth. 13th. The combination with the cylinder, the piston and the exhaust valve, of a rock arm connected with the exhaust valve and provided with a roller or bearing piece, a rotary exhaust cam engaging with said roller or bearing piece and having a salient portion for moving said rock arm forward and opening the exhaust valve and a receding portion which permits the rock arm to move backwardly for opening the exhaust valve, a rider disc arranged adjacent to the exhaust cam, a regulator pawl pivoted on said rock arm and adapted to engage with the face of the rider disc for holding the roller or bearing piece out of engagement with the receding portion of the exhaust cam, a spring whereby the regulator pawl is yieldingly held in engagement with the face of the rider disc and a trip cam whereby the regulator pawl is disengaged from the face of the rider disc for permitting the roller or bearing piece to engage with the receding portion of the exhaust cam and closing the exhaust valve, substantially as set forth. 14th. The combination with the cylinder, the piston and the exhaust valve, of a rock arm connected with the exhaust valve, and provided with a roller or bearing piece and with a stop lug, a rotary exhaust cam engaging with said roller or bearing piece and having a salient portion for, moving said rock arm forward and opening the exhaust valve and a receding portion which permits the rock arm to move backwardly for opening the exhaust valve, a rider disc arranged adjacent to the exhaust cam, a regulator pawl pivoted on said rock arm and adapted to engage with one side against the face of the rider disc for holding the roller or bearing piece out of engagement with the receding portion of the exhaust cam and bearing with its opposite side against the stop lug, a spring whereby the regulator pawl is held against said lug, a spring whereby the regulator pawl is yieldingly held in engagement with the face of the rider disc and a trip cam whereby the regulator pawl is disengaged from the face of the rider disc for permitting the roller or bearing piece to engage with the receding portion of the exhaust cam and closing the exhaust valve, substantially as set forth. 15th. The combination with the cylinder, the piston and the exhaust valve, of a roller or bearing piece connected with the exhaust valve, an exhaust cam engaging with said roller or bearing piece, a rotary rider disc arranged adjacent to said exhaust cam, a regulator pawl connected with the roller or bearing piece and adapted to engage with the rider disc, a movable trip cam arranged on the rider disc and adapted to disengage the regulator pawl from the face of the rider disc, a centrifugal weight lever connected with the trip cam and adapted to move the trip cam into an inoperative position and a spring whereby the trip cam is yieldingly held in its operative position, substantially as set forth. 16th. The combination with the cylinder, the piston and the exhaust valve, of a roller or bearing piece connected with the exhaust valve, an exhaust cam engaging with said roller or bearing piece, a rotary rider disc arranged adjacent to the exhaust cam, a regulator pawl connected with the roller or bearing piece and adapted to engage with the rider disc, a trip cam adapted to disengage said pawl with the face of the rider disc and pivoted with its rear end adjacent to the

rider disc, a centrifugal weight lever connected with the trip cam and pivoted at its front end to the pivot of the trip cam and a spring connected with the weight lever, substantially as set forth. 17th. The combination with the cylinder, the piston and the exhaust valve, of a roller or bearing piece connected with the exhaust valve, an exhaust cam engaging with said roller or bearing piece, a rotary rider disc arranged adjacent to the exhaust cam, a regulator pawl connected with the roller or bearing piece and adapted to engage with the rider disc, a trip cam adapted to disengage said pawl from the face of the rider disc and pivoted adjacent to the rider disc, a centrifugal weight lever yieldingly connected with said trip cam and a return spring connected with the weight lever, substantially as set forth. 18th. The combination with the cylinder, the piston and the exhaust valve, of a roller or bearing piece connected with the exhaust valve, an exhaust cam engaging with said roller or bearing piece, a rotary rider disc arranged adjacent to said exhaust cam, a regulator pawl connected with the roller or bearing piece, and adapted to engage with the rider disc, a trip cam adapted to disengage said pawl from the face of the rider disc and secured with its rear end to a wrist pin which is pivoted adjacent to the rider disc, a weight lever mounted loosely with its front end on said wrist pin and provided with a radial slot, a pin secured to said wrist pin and passing through said slot, and a spring secured with its ends to the weight lever and said pin, substantially as set forth. 19th. The combination with the cylinder, the piston and the exhaust valve of a roller or bearing piece connected with the exhaust valve, a supporting wheel journaled on an arbor and provided with an exhaust cam engaging with said roller or bearing piece, a rider disc secured to said wheel, a regulator pawl secured to the roller or bearing piece and adapted to engage with the face of the rider disc, a trip cam adapted to disengage with the regulator pawl from the face of the rider disc and secured with its rear end to a wrist pin which is pivoted in the supporting wheel, a weight lever mounted on said wrist pin, a spring for moving said weight lever inwardly and an adjusting screw arranged axially in the arbor and adapted to adjust the tension of the return spring, substantially as set forth. 20th. The combination with the cylinder, the piston and the exhaust valve, of a roller or bearing piece connected with the exhaust valve, a supporting wheel journaled on an arbor and provided with an exhaust cam engaging with said roller or bearing piece, a rider disc secured to said wheel, a regulator pawl secured to the roller or bearing piece and adapted to engage with the face of the rider disc, a trip cam adapted to disengage the regulator pawl from the face of the rider disc, weight levers arranged on the supporting wheel on opposite sides of its pivots, a rod connecting said weight levers, a wrist pin pivoted in the supporting wheel and connecting the front end of one of said levers with the rear end of the trip cam, a return spring secured with one end to the other weight lever, an elbow lever pivoted in the supporting wheel and having one of its arms connected with the return spring, and an adjusting screw arranged axially in the arbor and engaging with the other arm of the elbow lever, substantially as set forth. 21st. The combination with the cylinder, the piston and the exhaust valve, of a cam having a salient portion whereby the exhaust valve is held open during the exhaust stroke of the piston and a receding portion whereby the exhaust valve is permitted to close during the suction, compression and working strokes of the piston and a movable starting cam capable of being projected beyond the face of said receding portion for holding the exhaust valve open during a portion of the compression stroke of the piston, substantially as set forth. 22nd. The combination with the cylinder, the piston and the exhaust valve, of a supporting wheel provided with an exhaust cam having a salient portion whereby the exhaust valve is held open during the exhaust stroke of the piston, and a receding portion whereby the exhaust valve is permitted to close during the suction, compression and working strokes of the piston, a starting cam pivoted on the supporting wheel and adapted to be projected beyond the face of the receding portion of the exhaust cam or to be retracted, a turn button pivoted on the supporting wheel and adapted to hold the starting cam in its projected position, and a spring whereby the starting cam is retracted when released by the turn button, substantially as set forth.

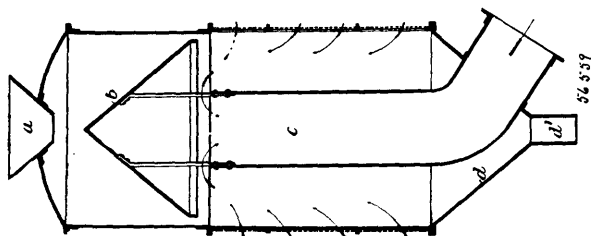
No. 56,558. Gate. (Barrière.)



Robert J. Young and John F. Higgins, both of Gardner, Kansas, U.S.A., 9th July, 1897; 6 years. (Filed 25th May, 1897.)

Claim.—A swinging gate arranged at its inner or hinged end between spaced posts and provided at its lower inner angle with a double hinge, whereby the gate is capable of horizontal and vertical swinging movement, an angular bracket connecting the posts at their upper ends, a horizontally swinging-rocker mounted upon the bracket, approximately co-axially with the vertical spindle of the double hinge, contiguous to the upper inner angle of the gate, a continuous looped truss wire or cable terminally attached to the rocker at opposite sides of its pivotal point and extending loosely at its looped portion through a transverse seat at the outer lower angle of the gate, and a clevis or rider adjustably seated upon the top rail of the gate contiguous to the outer end thereof and provided with terminal hooks engaging the side portions of the truss wire or cable at intermediate points, whereby the sides of the truss wire extend in approximately horizontal positions from the rocker to the clevis or rider and from thence in downwardly and outwardly inclined directions to the lower outer angle of the gate, substantially as specified.

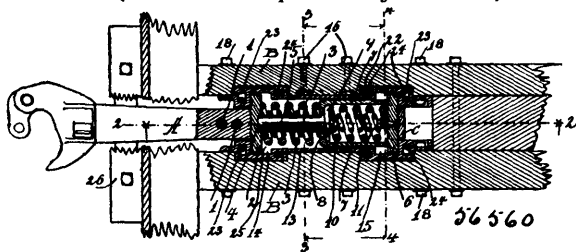
No. 56,559 Ore Pulverizer.
(Machine à pulvériser le minéral.)



Hermann Pape and Wilhelm Henneberg, both of Hohe Blechen 36, Harburg, Germany, 9th July, 1897; 6 years. (Filed 11th November, 1896.)

Claim.—1st. Apparatus for removing dust from pulverized ore and other granulated materials, consisting of a receptacle having a suitable inlet through which the material may fall, a pervious wall through which air may be drawn, an exhaust outlet for the air and dust and an outlet for the material freed from dust, substantially as described. 2nd. Apparatus for grading and removing dust from pulverized ore and other granulated materials, consisting of a receptacle having a suitable inlet through which the material may fall, means for spreading the falling material, pervious walls through which air may be drawn, an exhaust outlet for the air and dust and a series of outlets for the material freed from dust, substantially as described. 3rd. In apparatus for grading and separating dust from pulverized ore and other granulated materials, the combination of a receptacle having an inlet through which the material falls, an opening for a transversely acting air current immediately beneath the inlet, a pervious wall at one end of the receptacle through which air may be drawn, an exhaust outlet for the air and dust at the opposite end of the receptacle, and a series of intermediate hoppers pervious in part and conveyers therein, substantially as described.

No. 56,560. Draw-Bar Attachment for Car Couplers.
(Attache de barre pour attelages de chars.)

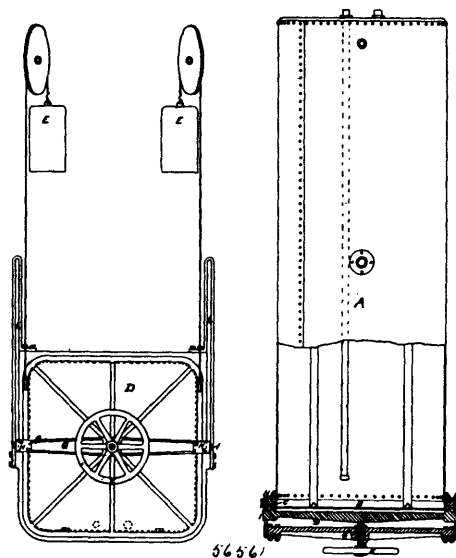


Henry C. Williamson and Hernan Pries, both of Michigan, Indiana, U.S.A., 9th July, 1897; 6 years. (Filed 5th June, 1897.)

Claim.—1st. In a device of the kind specified, a draw-bar provided with a loop rigidly secured thereto, a follower within said loop and adapted to be engaged by the rear end of the same, a box or casing within said loop and abutting against said follower, an opening in the forward end of said box or casing, a plunger having an enlarged rear end adapted to fit within said casing provided with a shank adapted to pass through said opening therein and abutting at its other end against a follower adapted to be engaged by the rear end of the draw-bar, a cushion interposed between the head of said casing and said foremost follower, and a cushion within said casing interposed between said enlarged end of said plunger and said rearmost follower, substantially as described. 2nd. In a device of the kind specified, the combination with a draw-bar having a loop rigidly secured thereto, followers within said loop at opposite ends thereof, a box or casing within said loop abutting against said rearmost follower, a plunger abutting against

said foremost follower and having an enlarged end adapted to fit within said casing, and cushions interposed between said head of said box or casing and said foremost follower and between said enlarged head of said plunger and said rearmost follower, of guide castings rigidly secured to the draft beams of the car and provided with shoulders adapted to limit the movements of said followers to hold said rearmost follower rigid upon imparting a buffing impetus and to hold said foremost follower rigid upon imparting a draft impetus, substantially as described. 3rd. In a device of the kind specified, the combination with a draw-bar having a loop rigidly secured thereto, followers within said loop, a box or casing abutting against said rearmost follower, a plunger abutting against said foremost follower and having an enlarged end adapted to fit within said casing, and cushions interposed between said head of said box or casing and said foremost follower, and between said enlarged head of said plunger and said rearmost follower, of draft beams provided with gains on their inner faces adapted to receive two recessed portions of guide castings secured to said inner faces of said draft beams and adapted to receive said followers and limit the movements of the same in either direction, to limit the extent of compression of said cushions, and transmit the strain thereon in either direction to said draft beams at two points, substantially as and for the purpose set forth. 4th. In a device of the kind specified, the combination with the draft beams gained at two points on their inner faces and adapted to receive guide castings having recessed portions adapted to enter said gains, of a draw-bar attachment comprising a plurality of cushions arranged in tandem between two followers adapted to enter said recessed portions of said guide castings, said recesses being limited in extent to less than the limit of compression of said cushions, and adapted to limit the movements of said followers in accordance therewith, substantially as and for the purpose described.

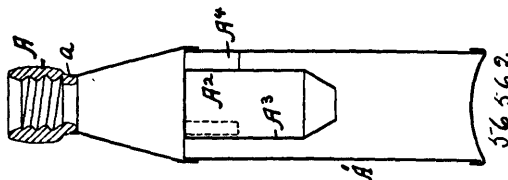
No. 56,561. Steam Box. (Coffre à vapeur.)



Andrew Gray, Victoria, B.C., Canada, 9th July, 1897; 6 years. (Filed 10th June, 1897.)

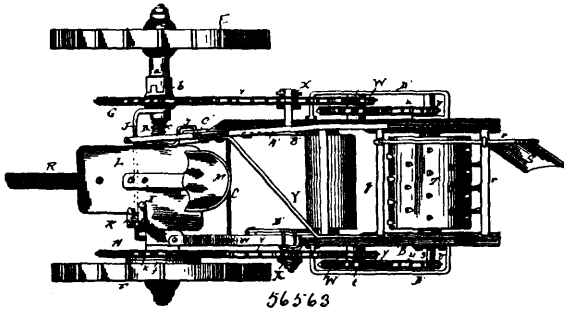
Claim.—The combination with a steam box A of mouthpiece B, door D, cross bar G, catches H H, serew J, wheel K, guides L L, substantially as and for the purpose hereinbefore set forth.

No. 56,562. Bottle. (Bouteille.)



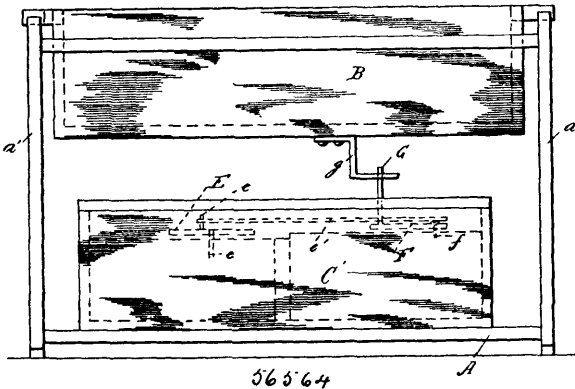
Aerators, Limited, assignee of Kenneth Sutherland Murray and Albert Johnstone Campbell, all of London, England, 9th July, 1897; 6 years. (Filed 10th June, 1897.)

Claim.—In bottles for containing waters and other liquids to be aerated therein, the combination with the bottle of an internal air entrapping chamber, substantially as herein set and for the purpose stated.

No. 56,563. Wheeled Plough. (Charrue à roues)

William Napoleon Curtis, St. Mary's, West Virginia, U.S.A., 9th July, 1897; 6 years. (Filed 10th June, 1897.)

Claim.—1st. A wheeled plough, consisting of a suitable frame, a plough and toothed roller at its rear end, a crushing cylinder with means for raising and lowering it, a long and a short axle, the latter having its beaming in the side beams of the frame, a slotted coupling bar rigidly connected to the long axle and extended downward therefrom, and the short axle adjustably connected to the slotted coupling-bar, drive-wheels supported upon the outer ends of the two axles, and suitable gearing for connecting and disconnecting the toothed roller with the drive-wheels, substantially as and for the purpose set forth. 2nd. A wheeled plough, consisting of a suitable frame, a plough and toothed roller at the rear end thereof, a crushing cylinder supported in an adjustable frame, brace rods pivotally connected to the frame of the machine, and to the ends of the crushing-cylinder, means for holding the cylinder suspended, a long and a short axle, a slotted coupling-bar rigidly connected to the long axle, and the short adjustably connected thereto, drive-wheels upon the outer ends of the axles, sprocket-wheels upon the axles, and means for engaging and disengaging the sprocket-wheels with the drive-wheels, a suitable sprocket-gearing connecting the sprocket wheels with the toothed roller, and guide-rollers over which the sprocket-chains pass, said rollers being connected to spring-arms whereby they will act automatically, substantially as and for the purpose specified.

No. 56,564. Cradle. (Berceau)

Thomas Kipling, Victoria, British Columbia, Canada, 9th July, 1897; 6 years. (Filed 11th June, 1897.)

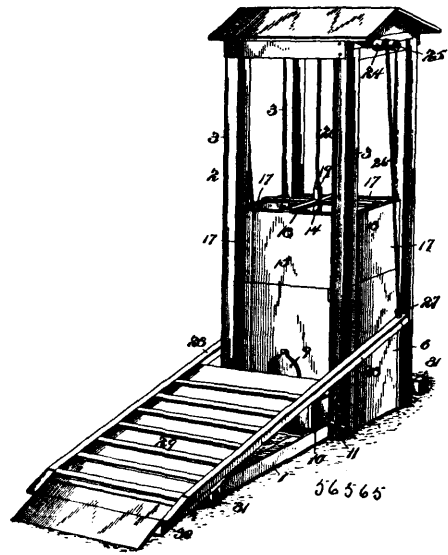
Claim.—1st. The combination, with a pivoted cradle, of a spring motor operatively connected with the said cradle so that the cradle is rocked, substantially as set forth. 2nd. The combination, with a pivoted cradle, of a spring motor arranged under the cradle and provided with a revoluble disc and crank-pin, a pivoted bell-crank lever provided with a projecting pin, a slotted plate on the cradle for engaging with the said pin, and a connecting-rod coupling the said bell-crank lever to the said crank-pin, substantially as set forth.

No. 56,565. Pump. (Pompe.)

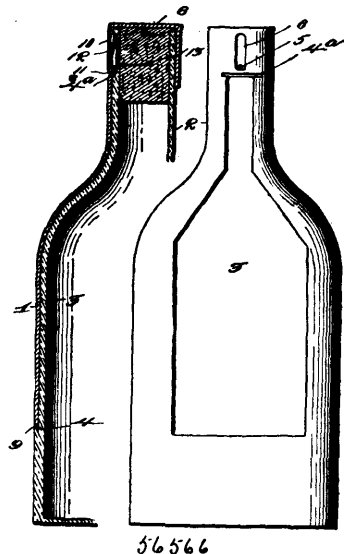
John William Bellairs, Colon, Michigan, U.S.A., 9th July, 1897; 6 years. (Filed 11th June, 1897.)

Claim.—1st. The combination of a base, a pump-cylinder extending at its upper end above the plane of the base, a plunger operating in the pump-cylinder and having a pump-rod, an open-topped housing supported by the platform around the upper extremity of the pump-cylinder, a slide mounted in guides above the housing and adapted when depressed to close the open top thereof, said slide being connected to the pump-rod, and means including a depressible platform for elevating the slide and plunger, substantially as specified. 2nd. The combination of a base, a pump-cylinder arranged at its upper end above the plane of the base, an open-topped housing

surrounding the upper extremity of the pump-cylinder, a plunger operating in the cylinder, a hollow slide mounted in suitable guides



above the housing and connected to the pump-rod, said slide having a closed bottom to fit and form a top for the housing when the plunger is depressed, and means including a depressible platform for elevating the slide and plunger, substantially as specified. 3rd. The combination of a base, standards rising from the base, a pump-cylinder arranged at its upper end between the standards, walls connecting the standards around the upper extremity of the pump-cylinder to house the latter, a slide mounted for vertical movement between the standards and having a closed bottom adapted to fit upon the upper ends of the housing-walls when the slide is depressed, a plunger operating in the cylinder and having a pump-rod connected to the slide, a drum mounted in cross-bars connecting the upper ends of the standards and connected by a cable with the upper end of the pump-rod, a pivotal platform, and cables connecting the free end of the platform with spools on the drum, substantially as specified.

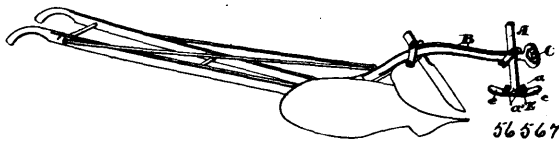
No. 56,566. Bottle. (Bouteille.)

Bliss Thibedeau, Moncton, N.B., Canada, 9th July, 1897; 6 years. (Filed 11th June, 1896.)

Claim.—1st. The combination with a bottle having a seat in the body portion thereof, of a seal consisting of cap to receive the end of the neck and a shield to enter said seat, said shield having a frangible portion, and locking devices between said seal and bottle. 2nd. The combination with a bottle having a seat, an exterior groove,

and an opening in the neck thereof, of a seal consisting of a cap having an interior groove, a shield to enter said seat, and a spring situated between the cap and neck provided with a bent and passing through said opening and into the body of the bottle. 3rd. The combination with a bottle having a seat extending along the neck and body portion of the same and provided with an extension at its lower end, of a seal consisting of a cap to receive the end of the neck and a shield to enter said seat, a lip at the lower end of said shield to enter said extension, said shield being provided with a frangible portion, and locking devices between said seal and bottle. 4th. The combination with a bottle having a seat in the body portion thereof, a notch at the upper end of said seat, of a seal consisting of a cap to receive the end of the neck, and a shield to enter said seat, said shield having a frangible portion opposite said notch, and locking devices between said seal and bottle. 5th. The combination with a bottle having a recess, an exterior groove in the neck thereof, and an opening at the lower end of said groove, of a seal consisting of a cap and a shield, a frangible portion at the base of said cap, and interior grooves in said cap extending upwardly from said frangible portion, said grooves of the bottle and cap being situated opposite each other, and a spring situated within said grooves and having an extension passing through the said opening of the bottle.

No. 56,567. Plough. (Charrue.)

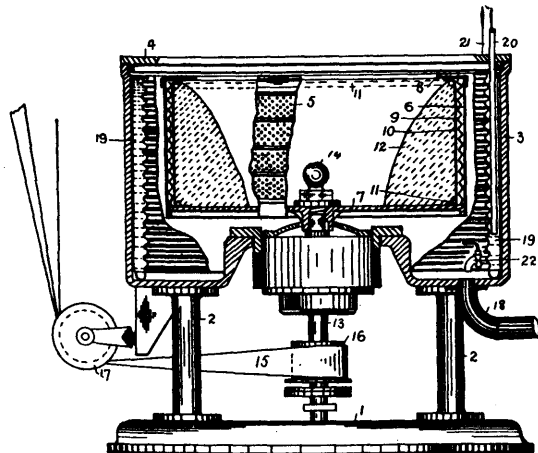


56567

John Melvin Latimer, Greenock, Ontario, Canada, 9th July, 1897; 6 years. (Filed 12th June, 1897.)

Claim.—1st. In a plough, the combination with the beam, plough share, and handles, of a pendant provided with a flat lower end extending longitudinally parallel or in alignment with the beam and horizontal crosswise, and means for securing such pendant to the beam, as and for the purpose specified. 2nd. In a plough, a combination with the beam, plough share and handles, of a pendant, a flat plate extending longitudinally with the beam secured to the lower end of the pendant horizontal crosswise and provided with curved ends, and means for securing the pendant to the beam next the clevis, as and for the purpose specified. 3rd. In a plough, the combination with the beam, plough share and handles, of a pendant having a forked lower end, a flat plate extending longitudinally with the beam and horizontal crosswise and bolts passing through the forked lower end of the pendant and plate and countersunk, in the plate as and for the purpose specified.

No. 56,558. Apparatus for Refining Fats and Oils. (Appareil pour purifier la graisse et l'huile.)



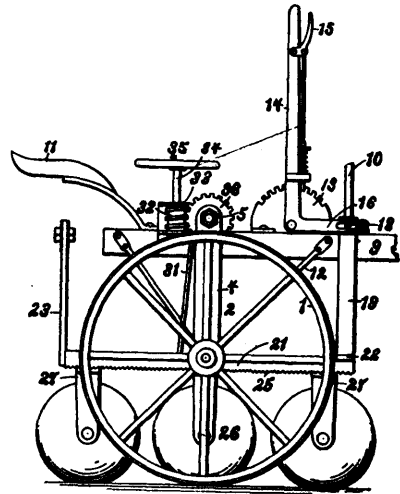
56558

James Davidson and Charles Graham Hepburn, both of Sydney, New South Wales, Australia, 9th July, 1897; 6 years. (Filed 11th June, 1897.)

Claim.—1st. In the refining of fats and oils, forcing the same whilst liquid through a filtering bed of sawdust by centrifugal action, substantially as described. 2nd. Apparatus for refining fats and oils, consisting of a centrifugal basket having a filtering bed or belt of sawdust which is retained therein by a fabric lining, substantially as described. 3rd. In a centrifugal machine of the hydro-extractor class, the combination with the perforated basket of a belt of sawdust 12 forming a filter bed which is retained in said basket by a lining 10, backed up if necessary by an openwork packing 9, substantially as described for the purpose set forth. 4th. In a centrifugal

fat and oil filter of the kind described, the combination with the rotating basket of an annular water chamber surrounding the same, for cooling the spray of filtrate thrown off by said basket, et, substantially as described. 5th. Apparatus for cooling liquid fats and oils, consisting of a centrifugal basket from which said fats or oils are thrown in a fine spray across an air space onto the wall of an annular cooler, the rotation of said basket causing an air draught to circulate in said air space and thereby cool said spray, substantially as described.

No. 56,569. Disc Cultivator. (Cultivateur à disques.)

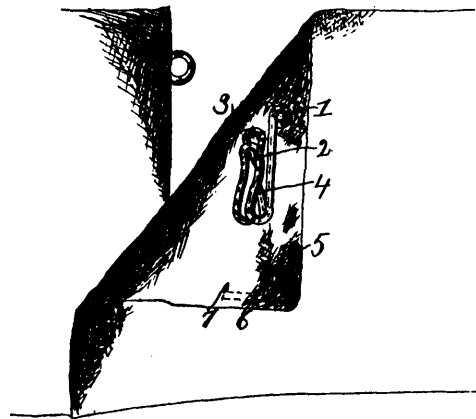


56569

Andrew Lee Brock, Lockhart, Texas, U.S.A., 9th July, 1897; 6 years. (Filed 14th June, 1897.)

Claim.—In a disc cultivator, the combination with the framework mounted upon suitable wheels, of a pole pivotally mounted therein, a sector secured to the upper side of said pole, a lever fulcrumed in said sector having right-angled extensions thereto, a disc-supporting frame loosely connected to the ends of said extensions, a worm mounted in a bracket secured to the rear ends of said pole, a worm gear-wheel meshing therewith, a sleeve mounted upon a suitable shaft to which said gear-wheel is connected, projections on said sleeve and cords connecting said projections and the rear end of said disc-supporting frame, substantially as and for the purpose described.

No. 56,570. Hook and Eye. (Crochet et oeillet.)



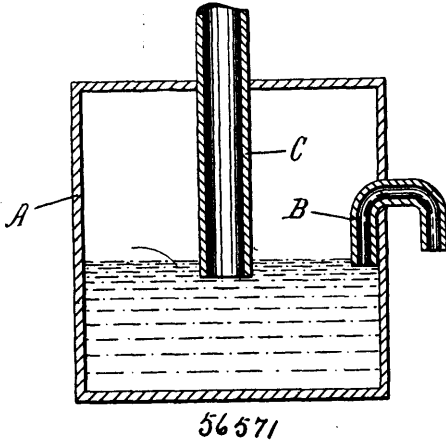
56570

Francis Hendricks Gorrel, Newton, Iowa, U.S.A., 9th July, 1897; 6 years. (Filed 14th June, 1897.)

Claim.—1st. A garment hook formed from a single piece of wire, having at one end a fastening eye or loop, at its opposite end a penetrating point, a hook intermediate said eye and point, an eye at the side of the hook, and one strand of wire crossing under the bill of the hook to prevent the eye from becoming accidentally detached, substantially as described. 2nd. A hook having a fastening-loop at one end, a lateral projection at the opposite end, an intermediate

hook and a fastening-loop at the side of the hook, said fastening-loops and projection being located at three different points within the length of the hook, substantially as described. 3rd. A hook member of a hook-and-eye fastening having a forwardly projecting extension, a lateral projection from said extension, and a penetrating point on the lateral projection, substantially as described. 4th. A hook formed from a single piece of wire, one end of which is formed into a fastening loop, and the other end into a forwardly projecting and curved extension having a point, an intermediate hook, a fastening eye at the side of the hook, and a curved bend under the bill of the hook, substantially as described. 5th. A hook comprising the eyes 1 and 3, the extension 5 having the point 7, the hook 2, and the curved bend 4, substantially as described.

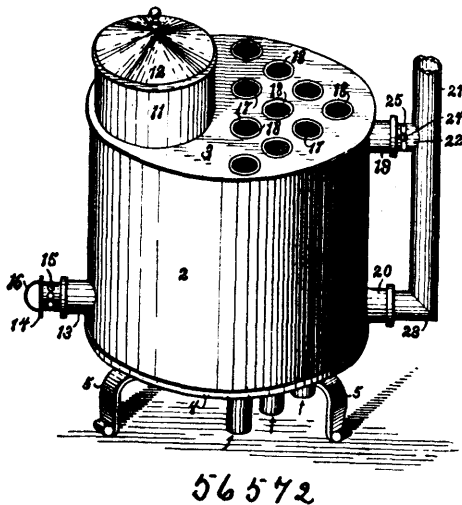
No. 56,571. Cesspool. (Fosses d'aisance.)



Marie Georges Forstall, Winnipeg, Manitoba, Canada, 9 juillet, 1897; 6 ans. (Déposé 11 juin, 1897.)

Résumé.—Une fosse d'aisance étanche à l'air, munie d'un siphon B, dont la grande branche est à l'intérieur, et d'un conduit C par lequel les matières fécales arrivent dans la fosse, l'extrémité inférieure de ce conduit étant à un niveau un peu plus bas que celui de l'extrémité de la grande branche du siphon et la fosse contenant de l'eau jusqu'au bas de la grande branche du siphon. Le tout tel que décrit et pour les fins indiquées.

No. 56,572. Heating Stove. (Poêle de chauffage.)

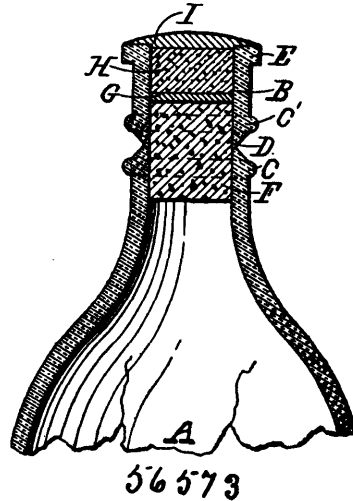


Frank Munson, Buchanan, Michigan, U.S.A., 9th July, 1897; 6 years. (Filed 14th June, 1897.)

Claim.—1st. In a heating-stove, the combination of a vertical partition dividing the stove-body into two upright compartments, the one forming a combustion-chamber, the other a hot-air space, said partition having notches or openings in its upper portion to establish communication between the separated compartments, a bank of tubes disposed in vertical and parallel relation in the hot-air space and opening at their respective ends through the top and bottom of the stove-body, a smoke-pipe having communication with

the hot-air space at the top and the bottom thereof, and a damper in the upper passage, whereby the heated air can pass directly from the combustion chamber to the smoke-pipe or be compelled to circulate around and between the bank of tubes, substantially as and for the purpose set forth. 2nd. In a heating-stove, the combination of a vertical partition dividing the stove-body into two upright compartments, the one forming a combustion-chamber, the other a hot-air space, said partition having notches or openings in its upper portion to establish communication between the separated compartments, a bank of tubes located in the hot-air space and having their lower ends extending a short distance below the bottom of the stove-body, and having their upper ends flanged and overlapping openings formed in the stove top, a smoke-pipe having communication with the upper and the lower portion of the hot-air space, and a damper in the upper passage affording communication between the hot-air space and the smoke-pipe, substantially as described and for the purpose set forth.

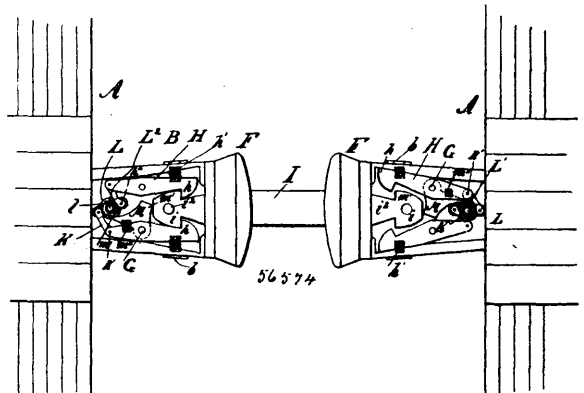
No. 56,573. Bottle. (Bouteille.)



Wenzel Hironymus B. Schmeid, Napa, California, U.S.A., 1897; 6 years. (Filed 14th June, 1897.)

Claim.—1st. An improved bottle having a neck formed with spaced beads or rims adapting it to be broken in the space there between, a cork in the neck traversing the plane of the space between the beads so that a portion of it projects when the neck is severed, a hard metal disc on top of the cork to prevent the latter being driven into the bottle, a mass of hard material filling the neck above the disc, said neck having an annular groove above the disc into which the hard material is forced to form a bond and a rim on top of the mass of material and having its outer edge supported upon a flange surrounding the mouth of the bottle. 2nd. In a bottle, a cork to be driven into the neck thereof to point below the plane of its mouth or opening, a hard-metal disc, placed on top of the cork to prevent its being driven into the bottle and plated so that it will not rust, a filling of hard material for preventing access to the disc and a flanged seat on top of the mass of material adapted to contain designating subject-matter.

No. 56,574. Car Coupling. (Attelage de chars.)

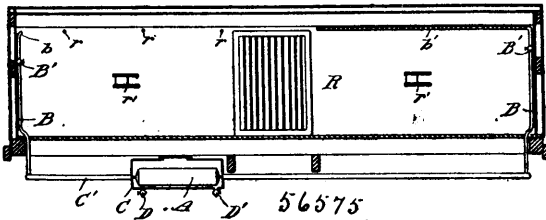


Jacob Frederick Strahle, Burr, Nebraska, U.S.A., 9th July, 1897; 6 years. (Filed 14th June, 1897.)

Claim.—1st. In a car coupling, the combination with the box coupling head, of the oppositely disposed coupling jaws, the bolts

passing up through said head and jaws, a cover plate held upon the top of the box coupling head by the said bolts and nuts fitted thereon, substantially as described. 2nd. In a car coupling, the combination with the box coupling head, of the oppositely disposed coupling jaws, the bolts passing upwardly upon each side of the head through the said jaws, the cover plate springs located upon each side of the coupling head to press against the jaws and cap plates upon the sides of the coupling heads to hold the side springs and allow them to be removed, substantially as described. 3rd. The combination in a car coupling, of the coupling head with the two pivoted oppositely disposed coupling jaws, the cross bar, ratchet wheel and vertical shaft, the toggle links connecting the cross bar and coupling jaws and pivoted abutment jaw adapted to engage with the ratchet wheel, substantially as described. 4th. In a car coupling, the combination with the coupling head, of the oppositely disposed pivoted jaws, the cross bar, ratchet wheel and toggle links, the abutment pawl and spring, a vertical shaft supported in the coupling head to which the ratchet wheel is secured, and a lever connected by chains at its ends and extending to the sides of the car, substantially as described.

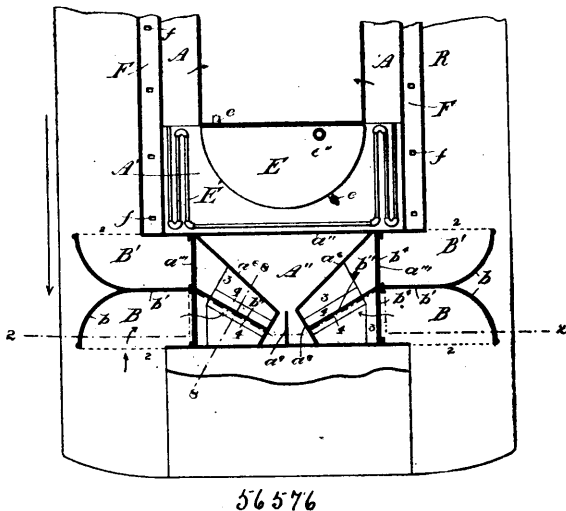
No. 56,575. Ventilator for Railway Carriages.
(*Ventilateur pour chars.*)



Samuel Hughes, assignee of Garnet B. Hughes, Lindsay, Ontario, Canada, 9th July, 1897; 6 years. (Filed 28th June, 1895.)

Claim.—In combination with a railway car or carriage, a cylinder or compressed air reservoir placed in any suitable position on said car, a connection with a source of compressed air provided with a back pressure valve, a cooling tank in which said reservoir is immersed and adapted to hold a cooling medium, supply pipes from said reservoir leading to convenient points in the car and provided with stop-cocks and nozzles, a draining valve on the reservoir and a draw-off cock on the cooling tank, substantially as set forth.

No. 56,576. Ventilating System for Railway Cars.
(*Ventilation de chars.*)

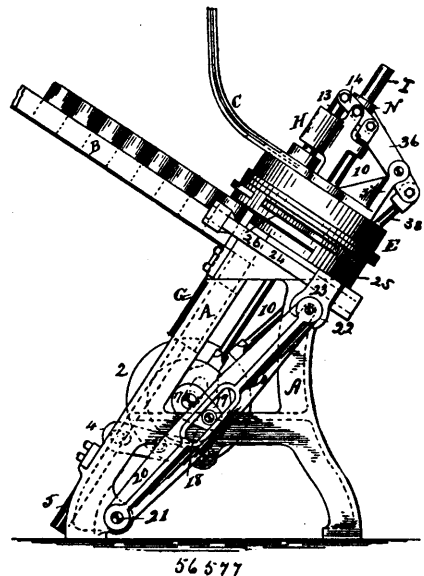


Samuel Hughes, Lindsay, assignee of Wallace Scott, Toronto, both in Ontario, Canada, 9th July, 1897; 6 years. (Filed 28th June, 1895.)

Claim.—1st. The combination with a railway car of a distributing air duct on each side and near the top or roof, a chamber formed by uniting said ducts at the end and adapted as a tank to hold water in its lower part, blowers or injectors at the sides of the forward or end part of said tank facing forward and rearward and having passages over the upper portion of a part of said tank and terminating in downward passages upon the water surface, and an air-tight tank or box in the rear part of said chamber adapted to hold water and provided with water-cock, exhaust-nozzle and draw-off-cock, and means of making and maintaining a partial vacuum in said tank,

substantially as set forth. 2nd. The combination of a chamber adapted as a tank to hold water in its lower part, air outlets at one end, a vacuum chamber or tank adjacent to said outlets, means of making and maintaining a partial vacuum in said tank and means of injecting air into said water tank and passing it by said vacuum tank to the outlets, substantially as set forth. 3rd. The combination of a chamber A¹, A¹¹ adapted as a tank to hold water in its lower part, openings at one end for the egress of air, a pair of blowers B, B¹ at each side of the forward part of said tank or chamber continuing in passages, 3, passing over a portion of the forward part of said chamber and terminating vertically downward above the water level, and an air-tight tank E in the rear part of said chamber, substantially as set forth. 4th. The combination of a chamber A¹, A¹¹ adapted to hold water in the lower part, low sides a¹¹¹, double blowers B, B¹ adjoining each side and having forward and rearward mouths 2 and curved backs b joined in a common partition b¹¹¹ separating the front from the rear, throats, 3, passing from said blowers at the top of the tank and terminating in vertical passages with narrow oblong discharge openings, 4, near the centre of the tank, and the hinged flap b¹¹¹¹ in said discharge opening secured to the central partition separating the two throats, substantially as set forth. 5th. In a system of ventilating railway cars, the combination of exhaust ducts along the sides of the monitor roof, a lipped opening in each duct between the two ends, and an ejecting device consisting of guide plates and deflectors g, g¹, g¹¹, g¹¹¹, substantially as set forth.

No. 56,577. Can Heading Machine.
(*Machine pour fonder les boîtes.*)

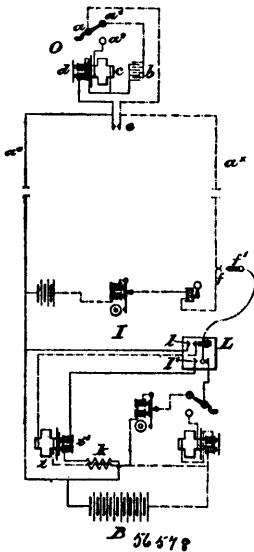


Robert Deniston Hume, Gold Beach, Oregon, U.S.A., 10th July, 1897; 6 years. (Filed 4th April, 1896.)

Claim.—1st. In a can heading machine and in combination, a can feeding plunger, an oppositely acting heading ram, an intermittently rotating can holder and carrier, and crimping rim surrounding said holder and carrier, substantially as described. 2nd. In a can heading machine and in combination, a can feeding plunger, an oppositely acting heading ram, a casing carrying a circular crimping rim, and an intermittently moving can holder and carrier alternately stationary and movable, substantially as described. 3rd. In a can heading machine and in combination, a can feeding plunger, an oppositely acting heading ram, an intermediate can holder and carrier alternately stationary and movable, independently rotatable can chambers in said carrier, and a crimping rim, substantially as described. 4th. In a can heading machine and in combination, a fixed casing having openings in line, oppositely acting plungers working through said openings, a can holder and carrier having independent chambers adapted to register successively with said openings, means for moving said holder and carrier intermittently, and a circular crimping rim secured to said casing, substantially as described. 5th. In a can heading machine, the combination with oppositely acting feeding and heading plungers, of an intermediate can holder, and a fixed swaging ring having a convex inner periphery, substantially as and for the purpose set forth. 6th. In a can heading machine and in combination, a feeding plunger, a heading ram in line therewith, an intermediate movable can holder and carrier having tubular chambers adapted to be aligned with said plungers, a crimping rim, and connections for causing the following operations, the feeding of a can into and partly through one of said chambers and the placing of a can head in line therewith, the with-

drawal of the feeding plunger to the entrance opening of said chamber and its momentary stoppage there, and the simultaneous advance of the heading ram in its heading movement, the partial rotation of the can carrier and the complete withdrawal of both plunger and heading ram, substantially as described. 7th. In a can heading machine, a table, a crimper casing mounted thereon and having a continuous crimping rim, a can holder and carrier within said casing, intermittingly movable, a can feeding plunger, a heading ram, a discharging plunger, a driving shaft and connections from said shaft for operating said plungers and for moving said carrier, substantially as described. 8th. In combination with a casing B having a crimping ring, and a friction ring, a central friction roller, a can carrier and tubular can holders loose in said carrier and having a bearing upon said friction roller and friction ring, substantially as described. 9th. In a can heading machine and in combination, a frame or table, a hollow sleeve supported thereby, a casing having an interior crimping rim, a friction roller having a bearing on said sleeve and a rotary can carrier within the casing having independently rotatable can chambers bearing upon said casing and said friction roller, substantially as described. 10th. In combination with the rotary can carrier, and with heading and crimping mechanism acting in conjunction therewith, a driving shaft, an oscillating lever, a swinging arm carrying a yielding pawl and a universal connection between said lever and said arm for transferring the direct oscillation of the lever to an arc-swing of said arm, substantially as described. 11th. In combination, the rotary can carrier, heading and crimping mechanism operating in conjunction therewith, a driving shaft, an oscillating lever, a reciprocating slide having a roller connection with said lever, a swinging arm having a roller connection with said slide, and a yielding pawl connected to said swinging arm, substantially as described.

No. 56,578. Application of Telephones to Electric Bell Systems. (*Système de cloches électriques pour téléphones.*)



Frederick Hodgson, Hampstead, Middlesex, and George Alfred Edwards, Peckham, Surrey, both in England, 10th July, 1897; 6 years. (Filed 5th June, 1896.)

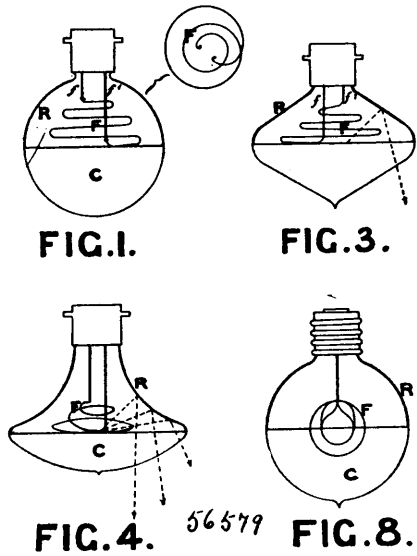
Claim.—1st. In an electric bell system utilized for telephone purposes, the employment of a condenser, substantially as herein described, and whereby the flow of current through the call circuit is arrested whilst the circuit is out of use. 2nd. In an electric bell system utilized for telephone purposes, the employment of a resistance, substantially as herein described, and whereby the flow of current through the call circuit is avoided or retarded, whilst the circuit is out of use. 3rd. In an electric bell system utilized for telephone purposes, the employment of the telephone receiver at the outlying station as a "call," substantially as herein described. 4th. In an electric bell system utilized for telephone purposes, the employment of an induced current to operate the "call" at the outlying station, substantially as herein described.

No. 56,579. Electric Incandescent Lamp. (*Lampe électrique incandescente.*)

Henry Francis Joel and Ferdinand Fanta, both of London, England, 10th July, 1897; 6 years. (Filed 31st July, 1896.)

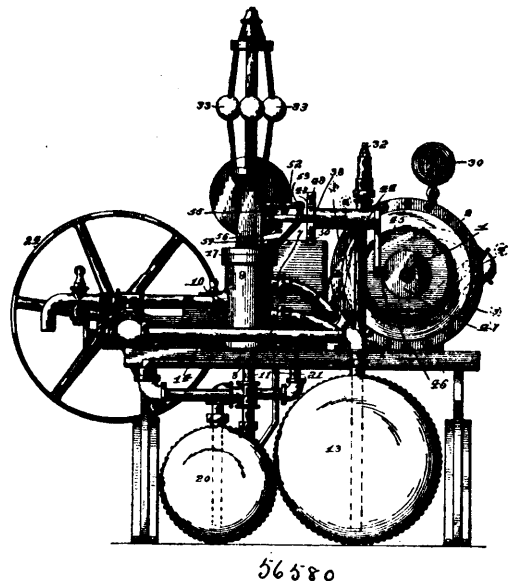
Claim.—1st. In an electric incandescent lamp, part of which is transformed into and utilized as a reflecting surface, an incandescent filament adapted as to its body other than the inlet and outlet leads

to lie substantially in a surface co-axial with and equidistant from that of the reflecting surface. 2nd. In an electric incandescent



lamp, the combination with a part of globe utilized as a reflecting surface, of an internal incandescent filament, adapted as to its inlet and outlet leads that the main body of the filament encloses and hides from sight the in and outlet branches of same, where incandescent, the whole being so arranged as not to interfere with the uniform reflection of the body of the filament, substantially as described and illustrated. 3rd. In an electric incandescent lamp, part of which is transformed into and utilized as a symmetrical reflecting surface, the transparent parts of the glass bulbs adapted as to their shape relatively to the reflectors, so that the direct light from the filament and the reflected light passes through the glass as nearly as possible at right angles to the surface of the glass with the least refraction and loss of light, substantially as described and shown. 4th. In incandescent electric lamps, the combination with an internal filament of a dull metallic reflecting surface upon the glass, such as is obtained from dull silvering, dull gilding, lead and other metals, so as to form or procure a non-polished reflecting surface upon the bulb to produce a uniform and diffused intensity of the reflected rays, substantially as and for the purpose set forth.

No. 56,580. Governor for Water Wheels. (*Roue hydraulique.*)



Marcus P. Schenck, Springfield, Mass., U.S.A., 10th July, 1897; 6 years. (Filed 26th April, 1897.)

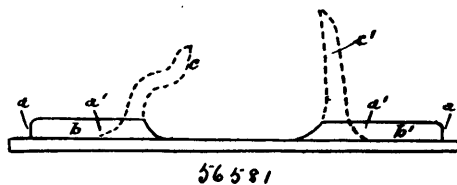
Claim.—1st. In a governor for water power, the combination of a winding shaft, a motor for turning said winding shaft, a suitable

source of power for operating said motor, connections for reversing the application of power to the motor, and a reciprocating cut-off operated by said motor and engaging the reversing connection at opposite limits of its throw, substantially as herein described. 2nd. In a water power governor, the combination of a winding shaft, a reversible motor controlling said shaft, a suitable source of power from which said motor is operated, a valve controlling communication of said power, the governor controlling the position of said valve to cause movement of the winding shaft in opposite directions, a lever also controlling said valve, and a rock shaft receiving opposite movements from the winding shaft and engaging the valve lever for actuating the valve when the winding shaft reaches either limit of its movement, substantially as explained. 3rd. In a controller for water power, the combination of a winding shaft, a fluid pressure motor controlling said winding shaft, a valve controlling the communication of fluid to said motor, a governor controlling said valve, a lever also controlling said valve, a rock shaft having arms projecting on opposite sides of said lever, a toothed segment carried by said rock shaft, and a worm wheel on the winding shaft engaging said segment, substantially as herein described. 4th. In a controller for water powers, the combination of a winding shaft, a fluid pressure motor controlling said winding shaft, a valve for controlling the communication of fluid pressure in opposite directions to said motor, a governor controlling said valve, and a shut-off lever for closing the valve when the governor is at rest, substantially as herein explained. 5th. In a controller for water powers, the combination of a winding shaft, a fluid pressure motor controlling said winding shaft, a valve controlling the communication of pressure to said motor, a pressure tank with which said valve communicates, a storage tank, and a pump having communication with said storage and pressure tanks for taking fluid from the former and delivering it under pressure in the latter, substantially as herein explained. 6th. In a controller for water powers, the combination of a winding shaft, the fluid pressure motor controlling said winding shaft, a valve having communications in opposite directions with the motor, a governor controlling the position of said valve, a pressure tank supplying fluid under pressure to said valve, a storage tank into which said valve exhausts, a pump having communications with the respective tanks for taking fluid from one and delivering it under pressure to the other, and suitable means for operating said pump, substantially as herein explained. 7th. In a fluid pressure motor, the combination of a cylinder, a rotary drum within said cylinder with an annular pressure chamber between them, blocks carried by the cylinder and bearing against the drum to divide the pressure chamber into compartments, gates carried by the drum and reciprocating radially against the cylinder to provide faces for receiving the pressure, and means substantially as described for positively withdrawing each gate as it reaches a block, substantially as herein explained. 8th. In a fluid pressure motor, the combination of an outer cylinder, a rotary drum within said cylinder leaving a space between them, blocks carried by the outer cylinder and abutting against the drum to divide the pressure chamber into compartments, ports for communicating pressure to the compartments, radially reciprocating gates carried by the drum and abutting against the inner wall of the outer cylinder to provide faces for receiving the fluid pressure, cranks having connection with the gates for imparting reciprocating motion to them, and means in connection with the crank for engaging by a fixed part of the motor for reciprocating the gates at the proper periods, substantially as herein explained. 9th. In a fluid pressure motor, the combination of the outer cylinder, the inner drum working in said cylinder and with a pressure chamber between them, radially reciprocating gates carried by the drum and abutting against the inner wall of the cylinder, blocks carried by the outer cylinder and abutting against the drum to divide the pressure chamber into compartments, cranks having pitman-connections with the gates for reciprocating them, pinions carried on the other ends of said cranks, and racks located upon a fixed part of the motor and in a position to engage each pinion as the gate which it controls approaches a block or is receding from a block, in order to withdraw the gate and project it again substantially as herein explained. 10th. A fluid pressure motor comprising an outer cylinder, an inner drum, the radially reciprocating gates carried by the inner drum, means located within the drum for imparting reciprocating motion to the gates, and means without the drum for actuating the reciprocating connections, substantially as herein explained. 11th. In a fluid pressure motor, the combination of the outer cylinder, the inner drum having a central chamber and radially reciprocating gates, and means for reciprocating said gates; said gates being provided with the radial passage for the escape of oil during the reciprocating movement of the gates, substantially as herein explained. 12th. In a fluid pressure motor, the combination of a cylinder formed with a closed end having an axial depression and with a removable end which is formed with a packed bearing, a drum within the cylinder formed with a boss or trimming fitted within the depression in the closed end of the cylinder and with a shaft fitted in the packed bearing of the removable end, the reciprocating gates mounted in said drum, and means carried by the drum for reciprocating the gates and engaging a fixed portion of the motor to receive actuating movement therefrom as the drum rotates, substantially as herein explained. 13th. In a fluid pressure engine, the combination of the outer cylinder, the inner drum formed with radial openings for the reciprocating gates, and with lateral grooves

in said openings, the reciprocating gates in said openings, and babbitt metal packing fitted in the grooves and against the gates by pouring in a melted state when the gates are in place, substantially as herein explained. 14th. In a fluid pressure motor, the combination of the outer cylinder, the inner rotating drum, the blocks for dividing the pressure chamber into compartments and abutting the inner drum, and the packing formed between the said blocks and the inner drum by pouring babbitt metal in recesses formed in said blocks while the drum is in place, substantially as herein explained. 15th. In a fluid pressure motor, the combination of the cylinder having closed and removable heads formed respectively with a depression and a packed bearing, a drum within the cylinder formed with bosses or trunnions one of which enters the depression in the closed head and with a shaft working in the packed bearing of the removable head, a removable ring fixed within the removable head and forming a bearing for the other trunnion of the drum, reciprocating gates working radially in the drum and extending between the closed head and the removable ring, means within the drum for reciprocating the gates, and means carried by the ring for imparting motion to the reciprocating means, substantially as herein explained.

No. 56,581. Manufacture of Steel Railway Chair.

(Fabrication de coussinet d'acier pour chemins de fer.)



Andrew Erskine Muirhead, Cart Forge, North Britain, Scotland, 10th July, 1897; 6 years. (Filed 26th April, 1897.)

Claim.—The slitting or splitting of the blank or billet to form the jaws of chair as described and shown.

No. 56,582. Hat Fastener. (Attache de chapeaux.)



William Evans, Somerset, Pennsylvania, U.S.A., 10th July, 1897; 6 years. (Filed 24th August, 1896.)

Claim.—1st. In a hat fastener, the combination with a plate provided with a screw-threaded opening and which is connected to the hat, of a hat pin having a screw-threaded shank adapted for engagement with the opening of the plate. 2nd. In a hat fastener, the combination with a plate provided with a series of perforations so that it may be connected to the hat by sewing, and also having a screw-threaded opening, of a hat pin provided with a screw-threaded shank adapted for engagement with the opening of the plate. 3rd. In a hat fastener, the combination with a plate provided with a screw-threaded opening, and having a series of perforations so that it may be connected to the hat, of a hat pin having its shank formed into an enlarged screw-threaded portion adapted for engagement with the opening of the plate.

No. 56,583. Process of Dry Distillation of Wood.

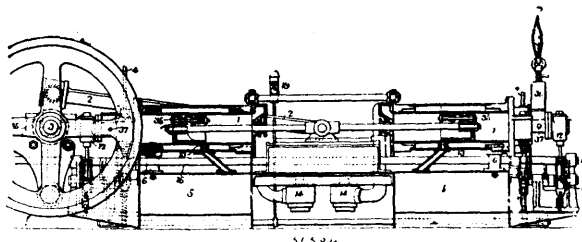
(Procédé pour la distillation du bois.)

Adolf Schmidt, Cassel, Prussia, Germany, 10th July, 1897; 6 years. (Filed 16th November, 1896.)

Claim.—1st. In a method of distilling wood waste, subjecting the wood waste, such as saw-dust or chips, to the action of heat in dry

chambers heated to one hundred and twenty to one hundred and thirty degrees Celsius, for the purpose of extracting the water, and then bringing the wood waste so heated into the briquet press for the purpose of forming blocks for treatment, substantially as described. 2nd. In a method of distilling wood waste and before the process of distillation, properly so called, begins, the extraction of turpentine from the blocks or briquets before being carbonized, by subjecting them in proper carbonizing retorts to a heat of about one hundred and twenty degrees Celsius, and after being so heated, introducing into said retorts dry steam of considerable tension, which, acting on the heated briquet or blocks, extracts the turpentine therefrom, the turpentine being then condensed and collected in proper condensing vessels, substantially as specified.

No. 56,584. Hydrocarbon Motor.
(*Moteur à hydrocarbonés.*)



Christopher Thomas Wordsworth, Manchester, Lancaster, Edmund Wiseman, Luton, Bedford, and John Holroyd, Alleyn Terrace, Park Road, West Dulwich, London, Surrey, all in England, 10th July, 1897; 6 years. (Filed 18th November, 1896.)

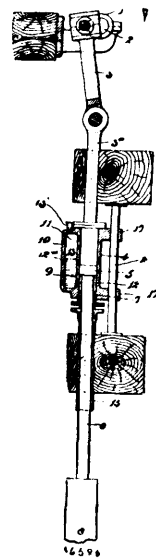
Claim.—1st. A hydrocarbon motor having a series of cylinders with pistons which are all connected together and coupled with a crank and the whole arranged that at each movement of the pistons a combustible charge will be received, a charge will be compressed, a compressed charge ignited, and products of combustion expelled. 2nd. The arrangements for increasing the density of the charge, consisting in compressing air into a reservoir by the movements of the motor pistons and connecting such reservoir with a port in the side of the cylinder which part the piston passes over and uncovers thereby permitting the compressed air to enter and mingle with the charge in the cylinder. 3rd. The arrangements for increasing the density of the charge and the more effectual expulsion of the products of combustion, consisting in compressing air into a reservoir by the movements of the motor pistons and providing valves upon the pistons which open and allow the air to pass at suitable times. 4th. The feeding appliance consisting of a vessel kept constantly full of the liquid fuel, a plug with a measuring passage of suitable capacity formed in it, a shell containing the plug and ports in the shell communicating respectively with the interior of the vessel, an open vent tube, a pipe supplying air under pressure and a pipe which delivers the charge to the cylinder of the engine. 5th. Arrangements for supplying the charge of hydrocarbon to the cylinder such that the hydrocarbon together with air traverses passages disposed around a heated chamber at the end of the cylinder and is delivered from these passages into the said chamber through numerous apertures grouped around a central passage which connects the heated chamber with the cylinder and which serves both to admit the charge to the cylinder and for the discharge of the highly heated products of combustion therefrom. 6th. The arrangements for cooling the cylinders consisting in forming spiral passages around them and causing air to be drawn through these passages by the reciprocating movements of the pistons into the cylinders at the end opposite to that which receives the charge. 7th. A hydrocarbon motor in which the cylinders are arranged in a group or groups of three, the group comprising a pair of high pressure cylinders and a low pressure cylinder all in close proximity and driving a shaft by cranks set at different angles, the arrangements being such that the high pressure cylinders are charged and fired at alternate strokes and that immediately after firing in each case a portion of the ignited charge is passed by a port in the side of the high pressure cylinder into the low pressure cylinder and mingles with air previously compressed by the piston in this cylinder. 8th. Mechanism for starting, stopping and controlling a driven shaft whilst the driving motor may run continuously, such mechanism comprising the wheel 88, and the brake strap 89, and lever 90, the brake drum 91, the cam piece 92, and an appliance for checking the rotation of the cam piece. 9th. In combination with mechanism for starting, stopping and controlling a driven shaft whilst the driving motor may run continually as described, the block 85, the axes and pinions which the said block carries and means for shifting the block to bring one pinion or another to gear with the wheel 88.

No. 56,585. Stamp Apparatus for Crushing Ores, etc.
(*Machine à broyer le minerai, etc.*)

Donald Barnes Morrison, Hartlepool, Durham, England, 10th July, 1897; 6 years. (Filed 9th December, 1896.)

Claim.—1st. Stamping apparatus of the kind herein referred to, comprising a gravity stamp, a positively driven part in frictional

driving connection with said stamp, and a body of liquid located between said stamp and positively driven part, so that the down-

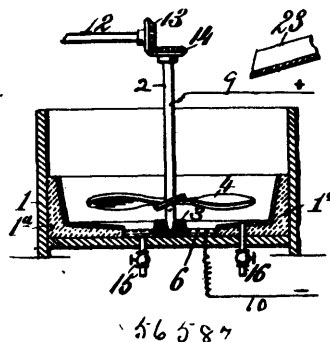


ward or operative strokes of the stamp can be effected by the combined action of gravity and motion imparted by friction from said positively driven part, and the return or upward strokes of the stamp are effected by rising movement of the said positively driven part communicated to the stamp through said body of liquid. 2nd. Stamping apparatus of the kind herein referred to, comprising a gravity stamp, positively driven parts in frictional driving connection with said stamp, and a spring located between said stamp and positively driven part, so as to come into action during the return or upward strokes of the said positively driven part and stamp. 3rd. In stamping apparatus of the kind herein referred to, a stamp connected by a rod to a piston, a cylinder arranged to have a vertical reciprocating motion imparted to it and wherein said piston is located, and a body of liquid located between the bottom of said cylinder and the bottom of the piston, the arrangement being such that the rod and attached stamp head will be lifted by the cylinder through the medium of the liquid, and during descent of the stamp head its velocity will, when the cylinder is driven with sufficient rapidity, be increased beyond that ordinarily due to gravity (after allowing for retardation due to friction) by reason of the frictional driving connection which will then obtain between the positively driven parts and the parts in mechanical connection with the stamp. 4th. In stamping apparatus of the kind referred to, a stamp connected by a rod to a piston, a cylinder arranged to have a vertical reciprocating motion imparted to it and wherein said piston is located so as to be in frictional driving connection therewith, and a chamber or reservoir charged with liquid and adapted to be placed in communication with the space between the piston and cylinder bottom, so that liquid can flow from one to the other when said cylinder moves relatively to said piston, substantially as herein described for the purposes specified. 5th. In stamping apparatus of the kind herein referred to, a stamp connected by a rod to a piston, a cylinder arranged to have a vertical reciprocating motion imparted to it of greater stroke than that of the stamp and wherein said piston is located, and a chamber or reservoir charged with liquid and adapted to be placed in communication with the space between the piston and cylinder bottom, so that liquid can flow from one to the other when said cylinder moves relatively to said piston, substantially as herein described for the purposes specified. 6th. A stamping apparatus of the kind referred to, comprising a series of stamps, positive driving mechanism, cylinders and pistons with interposed liquid, through which the lifting of the stamps is effected, and a liquid reservoir common to the series of stamps, the said cylinders being supplied with liquid (either directly or through chambers of their own) from the said common reservoir, into which there dip pipes that supply the cylinders, and into which reservoir also any excess of liquid is returned by overflow pipes from the cylinders or their chambers. 7th. In a stamping apparatus of the kind herein referred to, a stamp connected to a piston, a cylinder arranged to have a vertical reciprocating motion imparted to it and wherein said piston is located, a chamber or reservoir charged with liquid, and means for opening communication between said chamber or reservoir and the space between the piston and cylinder at different positions of said piston within said cylinder, substantially as herein described for the purposes specified. 8th. In stamping apparatus of the kind herein referred to, a combined cylinder and liquid chamber arranged side by side and arranged to have a vertical reciprocating motion imparted to them,

the wall between the said cylinder and chamber being formed with two or more holes 9a arranged at different heights, valves for separately controlling each hole, and a stamp connected to a piston located within said cylinder, substantially as herein described, for the purpose specified. 9th. In stamping apparatus of the kind herein referred to, constructing the tops of those portions of the stamp heads which surround the stems of a tooth-like or zigzag or waved form, to obviate or mitigate liability to fracture of the stems where the upper edges of the stamp heads surround them, substantially as described. 10th. Stamping apparatus of the kind herein referred to, comprising a stamp 8 connected by a stem to a piston 5, a vertically guided cylinder 4, containing said piston and carrying a chamber 13 charged with liquid and communicating with said cylinder above and below the piston through ports 9 and 11 respectively in the cylinder wall, a rotary crank 1, a link 3 connecting said crank and cylinder, and guides for said cylinder and stem, substantially as described. 11th. Stamping apparatus of the kind herein referred to, comprising a stamp 8 with stem 6 and piston 5, a vertically guided cylinder 4 containing said piston and carrying a chamber 13 charged with liquid and communicating with said cylinder above and below the piston thereof through ports 9 and 11 in the cylinder wall, a rotary crank 1, a link 3 connecting said crank and cylinder, a guide for said stem, and a sleeve 15 connected to said cylinder and arranged to surround said stem 6, so as to be located between the same and the guide therefor, substantially as described and for the purpose specified. 12th. In stamping apparatus of the kind herein referred to, the combination with the cylinder 4 having a stuffing box 7, and the liquid containing chamber 13, of a pipe or conduit connecting said stuffing box and chamber, substantially as described for the purpose specified. 13th. In stamping apparatus of the kind herein referred to, the combination with the rod 6 carrying the stamp head, of a toothed wheel fixed on said rod, a pawl adapted to engage with and partly rotate said wheel, a carrier adapted to oscillate on said rod and to which said pawl is pivoted, and a radius rod adapted to oscillate said carrier during vertical motion of said rod, substantially as described for the purpose specified. 14th. The combination and arrangement of parts constituting my improved stamping apparatus, substantially as hereinbefore described, with reference respectively to and shown in Figures 1 to 3 inclusive, and in Figures 4 to 7 inclusive of the accompanying drawings, or modified as set forth.

agitators of insulating material, a generator of electricity having its poles connected with said anode-cylinders and plates and to the mercury cathodes, respectively, and force-pumps having injection pipes to discharge beneath the cathode-plates and a suction pipe having its mouth above said plates, substantially as described. 5th. In an apparatus for the extraction of precious metals by direct electrolytic action, the combination with an electrolytic vat having cathodes arranged at its bottom, of anode-cylinders arranged above the said cathodes, anode-plates alternating with said cylinders, a generator of electricity having its poles connected to said anode-cylinders and plates and to the cathodes, means for rotating the anode-cylinders which are provided with agitators, a force-pump having injection pipes to discharge beneath the anode-plates and cylinders, said pipes being provided at or near their mouths with interior, concentric-rods having spiral ribs, or feathers, and suction pipes having their open ends arranged above the anode-plates, substantially as described.

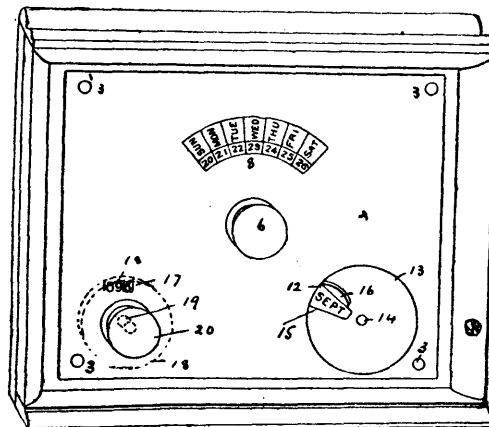
No. 56,587. Gold Extracting Process and Apparatus.
(Procédé et appareil pour extraire l'or.)



Louis Pelatan, Paris, France, and Fabrizio Clerici, Milan, Italy, 10th July, 1897; 6 years. (Filed January 25th, 1897.)

Claim.—1st. A single continuous process for the extraction of precious metals from their ores, and the amalgamation of the same, which consists in treating said ores with a comparatively weak solution of a soluble cyanide, such as cyanide of potassium, adding thereto a peroxide such as hydrogen binioxide, increasing the electric conductivity of said solution by adding chloride of sodium, increasing the solvent power of said solution by passing a relatively weak current of electricity through the same, retaining the sodium chloride in the solution practically without decomposition and continuously revolving the anode in the solution over a fixed cathode of mercury, substantially as described. 2nd. An apparatus for the extraction of gold and silver from their ores, the same comprising a pan, a revoluble anode centrally arranged therein and adapted to revolve within and agitate the solution, a fixed cathode consisting of mercury spread on the bottom of the pan, and amalgamated copper plates floating on said mercury, and a source of electric energy having opposite poles connected electrically to said anode and cathode, substantially as described.

No. 56,588. Perpetual Calendar. (Calendrier perpetuel.)



Willis Huston Colby, Littleton, New Hampshire, U.S.A., 10th July, 1897; 6 years. (Filed March 9th, 1897.)

Claim.—A calendar comprising the frame, the face plate secured thereto and provided with the arc shaped orifice, the days of the week arranged above said orifice, a rectangular opening and

No. 56,586. Electrolytic Process of Obtaining Precious Metal. (Procédé électrolytique pour obtenir des métaux.)

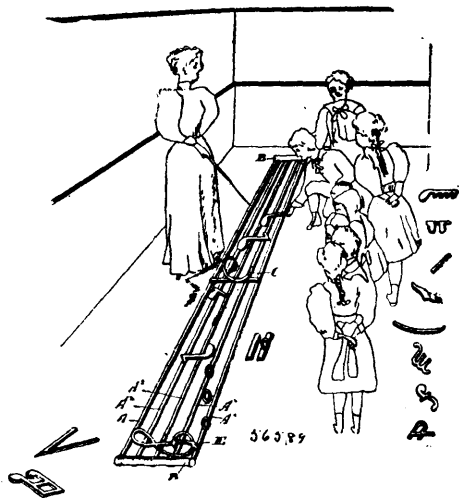


Louis Pelatan, Paris, France, and Fabrizio Clerici, Milan, Italy, 10th July, 1897; 6 years. (Filed 12th December, 1897.)

Claim.—1st. In an apparatus for the extraction of precious metals by direct electrolytic action, the combination with an electrolytic vat having cathodes arranged in its bottom, of a series of cylindrical anodes arranged in groups above and at a suitable distance from the cathodes, anode-plates arranged between and alternating with said groups, means for revolving the cylindrical anodes simultaneously, and a generator of electricity having its poles connected to the anode-cylinders and plates and to the cathodes, respectively, substantially as described. 2nd. In an apparatus for the extraction of precious metals by direct electrolytic action, the combination with an electrolytic vat having cathodes at its bottom, of a series of anode-cylinders arranged in groups above the cathodes and provided with agitators, anode-plates arranged horizontally above and alternating with said groups, a generator of electricity having its poles connected to the anode-cylinders and plates and to the cathodes, respectively, means for revolving the anode-cylinders, simultaneously, and a force-pump having pipes communicating with the vat above and below the anode-plates, by which a constant circulation and agitation of the electrolyte is maintained, substantially as described. 3rd. In an apparatus for the extraction of precious metals by direct electrolytic action, the combination with an electrolytic vat having a series of transverse depressions in its bottom, of cathodes arranged in said depressions and consisting of mercury and amalgamated plates, a series of anode-plates arranged above and at a suitable distance from said cathodes, a series of anode-cylinders alternating with said plates, the cylinders being provided with agitators, means for rotating said cylinders, and a force-pump having its suction pipe entering the vat above the anode-plates and communicating with injection pipes which discharge below said anode-plates, substantially as described. 4th. In an apparatus for the extraction of precious metals by direct electrolytic action, the combination with an electrolytic vat having a series of transverse dips, or depressions, in its bottom to receive mercury cathodes, of a series of groups of anode-cylinders and anode-plates alternating with the groups of cylinders, means for rotating the anode-cylinders which are provided with

a component part of the figures of the year arranged to the left of said opening, and a dial 12, containing the months of the year arranged in circular form on the face of said dial, in combination with the rotating disc 7, containing the days of the month, the disc 13, mounted in front of said dial and provided with a radial recess 15, and integral handle 16, and a dial 18, containing the digit numerals arranged in line with said rectangular opening, as and for the purpose set forth.

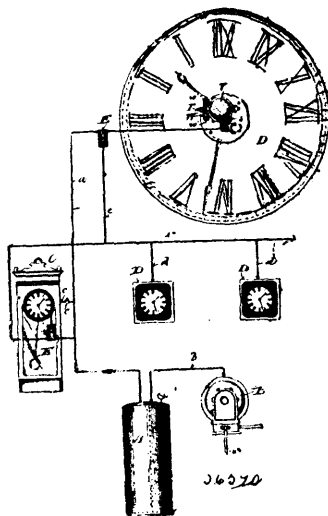
No. 56,589. Musical Block Game. (Jeu.)



Evelyn Ashton Fletcher, Toronto, Ontario, Canada, 10th July, 1897; 6 years. (Filed April 12th, 1897.)

Claim.—A game device for teaching music comprising a series of blocks representing the musical characters, and a pair of bars connected by a series of flexible strips representing a music scale, said bars being adapted to be laid upon a flat surface a distance apart to stretch said strips upon said surface with the surface as a background, when the device is in use said strips being also adapted to wind up on one or both of said strips when out of use, substantially as described.

No. 56,590. Pneumatic Clock. (Horloge pneumatique.)



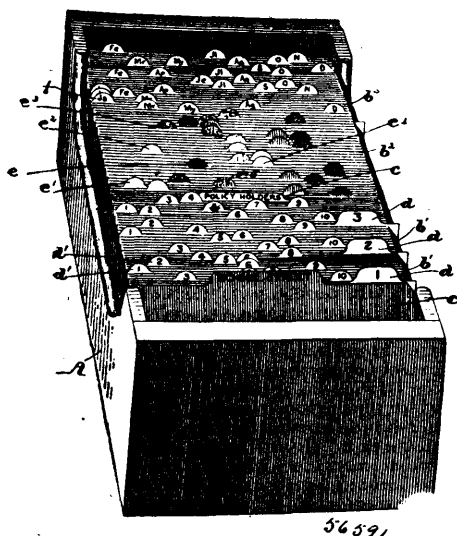
Warren Seymour Johnson, Milwaukee, Wisconsin, U.S.A., 10th July, 1897; 6 years. (Filed 22nd April, 1897.)

Claim.—1st. In a pneumatic clock or time system, the combination with one or more time indicating or recording devices, of a fluid pressure motor for actuating the same, a source of fluid pressure con-

nected with said motor, a valve controlling the admission and release of the actuating fluid to and from said motor, a secondary fluid pressure motor for actuating said valve, a sensitive secondary valve controlling the supply of actuating fluid in the secondary motor, and a master clock arranged to directly actuate said secondary valve at stated intervals whereby the said time indicating or recording devices are operated synchronously with said master clock, substantially as and for the purposes set forth. 2nd. In a pneumatic clock or time system, the combination with one or more time indicating or recording devices, of a fluid pressure motor arranged to directly actuate the same, a source of fluid pressure connected with said motor, a valve controlling the admission and release of the actuating fluid to and from said motor, a secondary fluid pressure motor for actuating said valve, a connection between said valve and secondary motor constructed and arranged to instantly shift said valve at a certain point in the gradual movement of the motor, a sensitive secondary valve for controlling the supply of actuating fluid in the secondary motor, and a master clock or chronometer constructed and arranged to directly actuate said secondary valve at stated intervals substantially as and for the purpose set forth. 3rd. In a pneumatic clock or time system, the combination with one or more time indicating or recording devices, of a fluid pressure motor for actuating the same, a source of fluid pressure connected with said motor, a valve controlling the admission and release of the actuating fluid to and from said motor, a secondary fluid pressure motor for actuating said valve, having a constantly open fluid supply connection and a relief opening of greater area than the supply passage, a sensitive valve controlling said relief opening, and a chronometer or master clock arranged to directly actuate said valve periodically, substantially as and for the purpose set forth. 4th. In a pneumatic clock or time system, the combination with one or more time indicating or recording devices, of a fluid pressure motor for actuating the same, a source of fluid pressure connected with said motor, a valve controlling the admission and release of the actuating fluid to and from said motor, a secondary fluid pressure motor for actuating said valve a sensitive gravity valve controlling the supply of the actuating fluid in said secondary motor, and a chronometer or master clock having a rotary projection arranged to lift said valve at stated intervals, substantially as and for the purposes set forth. 5th. In a pneumatic clock or time system, the combination with a time indicating or recording device, of a primary fluid pressure motor for actuating the same, a source of fluid pressure connected with said motor, a pneumatic relay consisting of a three-way valve in the supply and waste connection of said motor and a fluid pressure motor connected with said valve, a valve controlling the admission and release of the actuating fluid to said relay motor, a secondary fluid pressure motor for actuating said valve, a secondary valve controlling the supply of the actuating fluid in the secondary motor, and a chronometer or master clock having a rotary projection arranged to actuate said secondary valve periodically, substantially as and for the purposes set forth. 6th. In a pneumatic clock or time system, the combination of a secondary clock, a fluid-pressure motor for actuating the same, a source of fluid-pressure connected with said motor, a relay consisting of a three-way valve in the supply and waste connection of said motor and a fluid-pressure motor for actuating said valve, a valve controlling the admission and release of the actuating fluid from said relay-motor, a secondary motor for actuating said valve, a sensitive secondary valve controlling the supply of the actuating fluid in said secondary motor, and a chronometer or master-clock arranged to shift the secondary valve at intervals, substantially as for the purposes set forth. 7th. In a pneumatic clock or time system, the combination of a tower or large clock and one or more smaller clocks or time indicating or recording devices, fluid pressure motors for actuating said clocks, a source of fluid pressure connected with said motors, a relay consisting of a three way valve in the supply and waste connection of the larger clock and a fluid pressure motor connected therewith, a valve controlling the admission and release of the actuating fluid to and from the motors of said relay and smaller clock or clocks, a secondary fluid pressure motor for actuating said valve, a sensitive secondary valve controlling the supply of the actuating fluid in said secondary motor, and a chronometer or master clock having a part arranged to shift said secondary valve at stated intervals, substantially as and for the purposes set forth. 8th. In a clock, the combination of a time train, comprising a regulator, a substantially constantly acting fluid pressure motor arranged to actuate said train by the direct pressure of the fluid, a source of fluid pressure connected with said motor and a pressure regulating device whereby the actuating force that operates the motor is made constant, substantially as and for the purpose set forth. 9th. In a clock, the combination of a time train, including a regulator, a fluid pressure motor arranged to actuate said train by the direct pressure of the fluid, a source of fluid pressure connected with said motor, a valve controlling the supply of the actuating fluid in said motor and a connection between said valve and the movable part of the motor arranged to instantly shift said valve, substantially as and for the purpose set forth. 10th. In a clock, the combination of a time train, including a regulator, a fluid pressure motor arranged to actuate the same by the direct pressure of the fluid and having a constantly open fluid supply connection and a relief opening of larger area, a valve controlling said opening, a connection between said valve and the movable part of said motor arranged to instantly shift said valve when said movable part reaches the limits of its movement, substantially as and for the

purposes set forth. 11th. In a clock, the combination with the hand arbours of a worm gear mounted on one of them, which is connected by suitable gearing with the other, a worm meshing with said gear, a ratchet or toothed wheel on the worm shaft and a fluid pressure motor, the movable part of which is connected with one or more pawls adapted to turn said ratchet wheel, substantially as and for the purposes set forth. 12th. In a clock or time system, the combination of one or more secondary clocks, each comprising hand arbours, a worm gear mounted on one of said arbours, which is connected by suitable gearing with the other, a worm meshing with said gear, a ratchet wheel mounted on the worm shaft, one or more movable pawls adapted to turn said ratchet wheel and a fluid pressure motor connected with and arranged to actuate said pawl or pawls, a source of fluid pressure connected with said motor, a valve controlling the admission and release of fluid pressure to and from said motor, a secondary fluid pressure motor arranged to actuate said valve, a secondary valve controlling the supply of the actuating fluid in the secondary motor, and a master clock arranged to actuate said secondary valve at regular intervals, substantially as and for the purposes set forth. 13th. In a clock or time system, the combination of one or more secondary clocks, a fluid pressure motor or motors arranged to actuate the same, a source of fluid pressure connected with said motor or motors, a valve controlling the admission and release of the actuating fluid to and from said motor or motors, a secondary fluid pressure motor arranged to actuate said valve, a secondary valve controlling the supply of the actuating fluid in said secondary motor, and a master clock arranged to actuate said secondary valve at stated intervals and having a time train, including a regulating device, a fluid pressure motor arranged to directly actuate said time train, a valve controlling the supply of fluid pressure in said motor, and a connection between the movable part of the motor and said valve constructed and arranged to instantly shift the latter when said movable part arrives at the limits of its movement, substantially as and for the purposes set forth. 14th. In a pneumatic time system, the combination with one or more secondary clocks, D, each comprising a fluid pressure motor, V, a fluid pressure reservoir, A, and a supply pipe, as a^2 , connecting the motor of each secondary clock with said reservoir, of a main supply and waste valve, E, controlling the admission and release of the actuating fluid to and from each motor through said supply pipe, a fluid pressure motor, P, for operating said valve, having a constantly open restricted fluid supply passage, c^6 , and a waste passage or part of greater area than the supply passage, a pivoted arm or lever, O, provided with a valve, o , normally closing said waste part, and a waste clock, C, provided with a cam, N, constructed and arranged by engagement with said arm or lever, O, to open said valve at frequent and regular intervals, substantially as and for the purposes set forth.

No. 56,591. Card Record. (Carte de registre.)

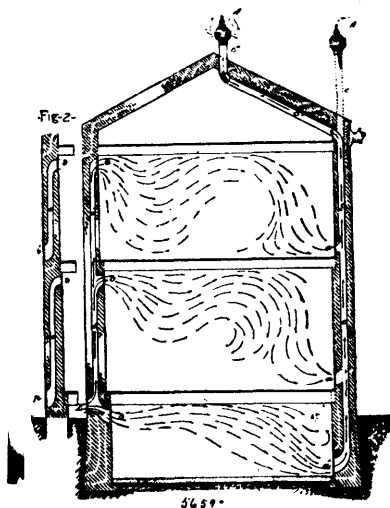


James Newton Gunn, Medford, Mass., U.S.A., 10th July, 1897; 6 years. (Filed 23rd April, 1897.)

Claim.—1st. A plurality of groups of record cards, all the cards of each group being provided with similar distinguishing portions similarly placed, and the different groups having different distinguishing portions, the various cards being adapted to stand one behind the other, and the record or records recorded by the respective groups being indicated by the different distinguishing portions, substantially as described. 2nd. A series of record cards distinguished in groups by having distinguishing portions differently positioned on the cards of different groups, similar distinguishing portions being similarly positioned on all of the cards of the same group, combined with division or index cards arranged at intervals

therethrough, as desired, whereby corresponding records may be seen by observing the similar distinguishing portions falling longitudinally in line one behind the other, in whatever order or however arranged the cards may be, substantially as described. 3rd. A system of cards for organized records based on the characterization of the cards by contour and colour, the subjects of the record being divided up in groups, each of which is represented in the record by cards having a given contour, with one card for each subject of the group, the distinguishing portion of each card of a certain contour being in alignment with the distinguishing portions of the cards of like contour, but out of alignment with the distinguishing portions of the cards of a different contour, the chromatic characterization of the cards being independent of their characterization by contour, substantially as described. 4th. In card records, a stock of record cards in a series of groups distinguished from each other by distinguishing portions differently positioned on the different groups, the distinguishing portions of all the cards of each group being similarly positioned, said record cards being adapted to be used in connection with one or more indexes, a separate card being entered for each separate or new record, the different groups of records being readily recognized or selected by means of the location of their respective distinguishing portions, similar portions falling longitudinally in line, one behind another, substantially as described.

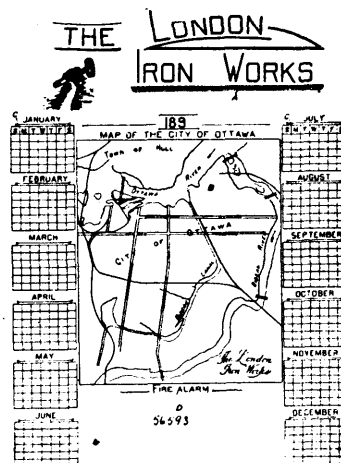
No. 56,592. Ventilateur. (Ventilator.)



Théophile Lessard, Montréal, Québec, Canada, 10 juillet 1897; 6 ans. (Déposé le 9 mars 1897.)

Résumé.—Dans une installation de ventilation, la combinaison du conduit d'appel ou d'échappement c, c^1, c^2 and c^3 , et des bouches a, a^1 and a^2 , ainsi que du ventilateur A-A' actionné par le vent, tel que décrit et pour les fins indiquées.

No. 56,593. Advertising Medium. (Moyen d'annoncer.)

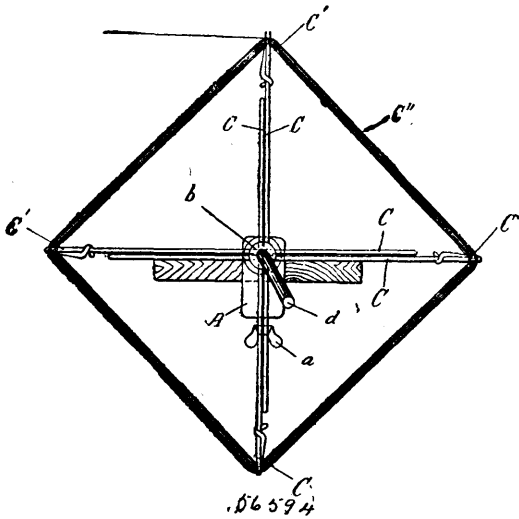


Joseph Epiphane Chalifour, Ottawa, Ontario, Canada, 10th July, 1897; 6 years. (Filed 16th June, 1897.)

Claim.—1st. In an advertising medium having a space for the name of a firm, or firms, spaces for the annual calendar, and a

space for the fire alarm telegraph code, a prominent space for the map of a city, town, etc, substantially as described and for the purpose set forth. 2nd. In an advertising medium, the combination of a title space A, calendar spaces C, C, fire alarm space D, a detail space E and a space for a map of a city, town, village, etc, substantially as shown and for the purpose set forth.

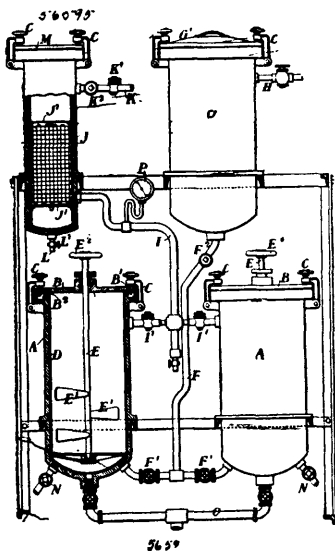
No. 56,594. Reel. (Dévidoir.)



Louis Barceloux, Stanbridge Sta., Québec, Canada, 10 juillet 1897; 6 ans. (Déposé 17 avril 1897.)

Résumé.—1. Un dévidoir comprenant un support susceptible d'être assujéti à une table, un banc etc, un coussinet formé à même le support, un essieu tournant dans le coussinet, des tiges métalliques C, terminées par des loupes C', et une manivelle vissée dans le centre de l'essieu, la dite manivelle servant à faire tourner le dévidoir et aussi à presser les tiges C, les unes contre les autres pour les maintenir en place, le tout tel que décrit et pour les fins indiquées. 2. Dans un dévidoir, la combinaison d'un essieu tournant dans un support convenable avec des tiges métalliques pouvant glisser à frottement doux dans des trous pratiqués diamétralement dans le dit essieu et se terminant par des loupes C', et une manivelle vissée dans le centre du dit essieu, le tout tel que décrit et pour les fins indiquées.

No. 56,595. Acetylene Gas. (Gaz acétyline.)

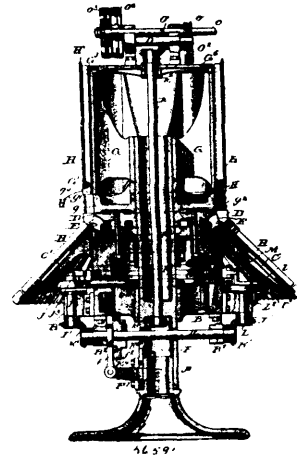


Michael Crowley, assignee of Robert Goodwin, both of Dublin, Ireland, 12th July, 1897; 6 years. (Filed 27th January, 1897.)

Claim.—1st. In apparatus for the manufacture of a mixture of acetylene and carbonic acid gas, the combination with one or more vessels charged with calcium carbide and chalk or marble, such as A, of a purifying vessel charged with sulphate of copper, so that

the mixture of acetylene and carbonic acid gas is made to pass from the generator through the purifying vessel so as to become purified from arsenic and other impurities before passing to the gas holder, substantially as described. 2nd. In the manufacture of a mixture of acetylene and carbonic acid gases, the method of operating which consists in mixing with the calcium carbide a proportion of chalk, or marble, and supplying the vessel containing the same with water acidulated with a suitable acid, so that carbonic acid will be produced from the chalk, etc., at the same time that acetylene is generated from the calcium carbide, substantially as described. 3rd. In apparatus for the manufacture of a mixture of acetylene gas and carbonic acid, the combination of a vessel, such as A, charged with a mixture of calcium carbide and chalk or marble, a second vessel, such as G, from which acidulated water is supplied in regulated quantities to the vessel A for generating both acetylene and carbide acid, and a purifying vessel, such as J, divided by perforated partitions into three compartments, the upper one of which is charged with sulphate of copper for purifying the gases, while the middle one contains wire filling for effectually mixing the gases passing through it; the lowest compartment serving to collect the separated impurities, substantially as described. 4th. In apparatus for the manufacture of acetylene gas the vessels A, G and J of the construction and with the connections substantially as shown and described.

No. 56,596. Type Distributing Machine. (Machine à distribuer les caractères.)

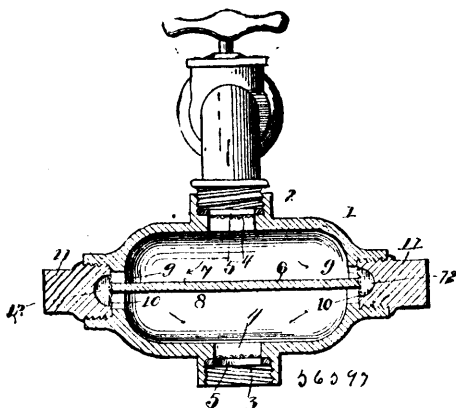


The Cox Typesetting Machine Co., assignee of Paul Fleming Cox, both of Chicago, Illinois, U.S.A., 12th June, 1897; 6 years. (Filed 31st March, 1897.)

Claim.—1st. In a mechanism for rotating a test plate step by step, the combination of a rotatable notched casting, a swinging lever; and a dog on said lever adapted to engage the notches of the casting; with the rotating shaft parallel with the axis of the casting, the eccentric thereon and connections between said eccentric and lever for vibrating the latter, a cam on said shaft and a sliding plate or bar pivoted to the dog reciprocated by said cam, whereby the dog is thrown into and out of engagement with the notches of the casting at the proper times during the reciprocations of the lever, all substantially as and for the purpose described. 2nd. The combination of the horizontal rotatable notched annulus; the horizontally swinging lever *i'*; and the dog J pivoted on the lever; with the vertical rotating shaft, the eccentric *i* thereon, the eccentric strap *i'* connected to the lever; a cam-grooved disk J on said shaft, and the sliding bar *J'* operated by said cam and pivotally connected to the dog *j*, all substantially as and for the purpose described. 3rd. In a registering mechanism for type distributing machines, etc., the combination of a notched casting; a lever pivoted on a support beside the casting and having a tooth adapted to engage a notch thereof, and a lever pivoted on the first lever having a tooth adapted to engage another notch of the annulus, with means substantially as described for moving the toothed levers into engagement with the notches, then forcing the teeth of the levers apart; then moving them together and withdrawing them from the notches; all substantially as and for the purpose set forth. 4th. The combination of the notched annulus, the levers as *m*, *M*, arranged substantially as described; with the cam-disk, and the sliding bar for vibrating said levers, and a spring for rocking lever *M* on lever *m*, all substantially as and for the purpose set forth. 5th. The combination of the notched annulus, the adjustable lever

as *m*, the rocking lever as *M* pivoted on lever *m*; the spring *M*², the slide *l* and cam disk *L*², all substantially as and for the purpose described. 6th. The combination with the reservoir, and test plates of a type distributing machine, of means substantially as described for automatically cleaning one or more test plates of the machine when and while the type-channels of the reservoir and test-plate are in register, during the operation of the machine, all substantially as and for the purpose described. 7th. The combination with the undistributed type reservoir and the test-plate disk, of a type-distributing machine; of one or more test-plate cleaning rubbers or brushes in one or more of the type-channels of the reservoir, and means for reciprocating said brushes past the test plate so as to clean them when the type channels and the test-plates are in register, all substantially as and for the purpose set forth. 8th. The combination with the undistributed type-reservoir, and the test-plate disk below the reservoir, and means for moving one of said parts in relation to the other so as to cause the test-plates to successively register with the type channels of the reservoir; of one or more vertically movable slides in one or more of the type-channels, provided with test-plate cleaning rubbers or brushes on their lower end; oscillating levers connected to the upper ends of said slides, and a cam and springs for oscillating said levers when the test-plates and type channels are in register, all substantially as and for the purpose described. 9th. In a type distributing machine, an undistributed type reservoir, consisting of the casting *g* having slots *g*¹, with the casting *G* having slotted flanges *G*¹, *G*³, all substantially as and for the purpose described. 10th. In a type distributing machine, the combination of the reservoir having slots *g*¹ in its lower end, and flanges *G*¹, *G*³, above said slots *g*¹, said flanges being slotted at points coincident with slots *g*¹; with the removable type-line holders *H* fitted over slots *g*¹ and retained by the slots in the flanges, all substantially as and for the purpose described. 11th. In a type distributor, the combination of the supporting standard, the bifurcated vibrating pusher-plate *F*, the oscillating lever as *F*² pivoted on the standard and connections between the lever and plate for vibrating the latter; with the rotary shaft *K* carrying cam disk as *K*⁴, the slotted slide-rod embracing said shaft and operated by said cam, and connected to an actuating lever *F*², all substantially as and for the purpose described. 12th. In a type distributing machine, the combination of the stationary type reservoir mounted on a central hollow standard; the rotatable test-plate disk *D* below the reservoir; the rotatable type-holder support *C* connected to the disk; the type pushers *E* in the slots of the disk; the pusher operating plate *F*; the notched annulus *b*, and the bottom casting *B* fixed to the support and upholding the parts *b*, *C*, *D*, and *F*; with the shaft *K* transfixing the support below the casting *B* and suspended from the latter, the disk rotating mechanism supported on one side of casting *B* and driven from one end of shaft *K*; the disk registering mechanism supported on the opposite side of casting *B* and driven from the other end of shaft *K*, the mechanism for vibrating plate *F*, also driven from shaft *K*; and the vertical shaft and gearing substantially as described for driving shaft *K*, all substantially as and for the purpose described.

No. 56,597. Water Filter. (Filtre.)

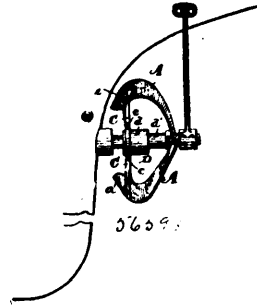


John Gilbert Avery, Spencer, Massachusetts, U.S.A., 12th July, 1897; 6 years. (Filed 28th April, 1897.)

Claim.—1st. A filter having threaded openings at the top and bottom thereof, by means of which it may be attached to an ordinary faucet and threaded openings in the outer ends thereof, screens in the openings at the top, bottom and two ends of said filter, a partition dividing the same into two compartments, each of which is filled with filtering material and passages at the outer ends of said partition leading from one compartment to the other, the screens in the openings at the outer ends of said filter being located across said passages. 2nd. A filter having threaded openings at the top and bottom thereof, by means of which it may be attached to an ordi-

nary faucet and threaded openings in the outer ends thereof, a longitudinal partition dividing said filter into two compartments, one of which is filled with bone charcoal and the other with quartz, screens soldered or otherwise secured to the outer ends of said partition, caps or covers having chamfered inner surfaces in the openings in the outer ends of said filter and passages leading from one compartment to the other, the said screens being located across said passages and said passages being partially formed by chamfered inner surfaces of said caps, substantially as and for the purpose described.

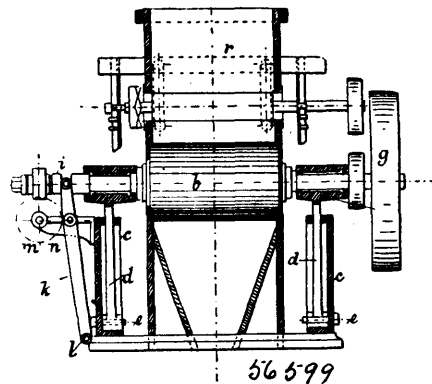
No. 56,598. Propeller. (Propulseur.)



Nelson W. French, Sayer, Pennsylvania, U.S.A., 12th July, 1897; 6 years. (Filed 28th April, 1897.)

Claim.—1st. The combination with the shaft or hub, formed of elliptical sections whose longer traverse axes are at an angle to each other, of two sets of arms which are clamped on said sections and have their outer portions twisted, and elongated blades or paddles, bolted to such end portions, and arranged at a longitudinal angle to the shaft as shown and described. 2nd. The combination, with the shaft, and hub having oval sections which are arranged at a transverse angle to each other, paddles or blades, and arms whose inner flat portions embrace and are clamped on the hub, and whose outer ends are bent laterally and twisted to adapt them to hold the paddles at the proper angle and fit flat upon the same, as shown and described.

No. 56,599. Method of and Apparatus for Refining Wood Pulp. (Méthode et appareil pour le raffinage de la pulpe.)



Carl Pedersen, Maskinværksted, near Christiania, Norway, 12th July, 1897; 6 years. (Filed 28th April, 1897.)

Claim.—1st. The method of refining chemical or mechanical wood pulp, which consists in passing the pulp between two cylinders or rollers rotating against one another at different speeds, one of said cylinders having a reciprocating endwise motion, as set forth. 2nd. The apparatus comprising two cylinders rotating against one another at different speeds in the frame of the apparatus and the other at the end of an oscillating arm regulated to impart an endwise reciprocating motion to one of the cylinders, said arm operated by an eccentric wheel and by the axle of the cylinder connected to the box and embracing the axle, as set forth.

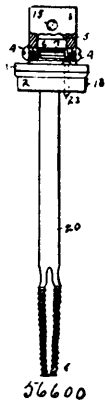
No. 56,600. Safety Socket for Taps or Drills.

(*Douille de sûreté pour filières ou forêts.*)

Gottleib Bettcher, Cleveland, Ohio, U.S.A., 12th July, 1897; 6 years. (Filed 29th April, 1897.)

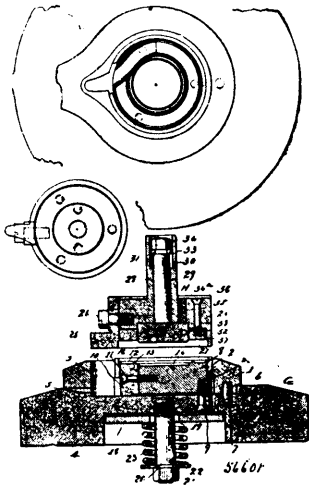
Claim.—In a safety-socket for taps and drills, the following elements in combination, a sleeve 1 provided with an annular flange 3

at one end, a tool holder 2, provided with the spindle 6, rotatable within said sleeve 1, an annular groove 7 in the periphery of said



spindle, screws 4 engaging said sleeve and spindle, a series of holes 11, 12, 13 and 14 in the flange 3 concentric to the axis thereof, each of said holes being provided with a steel bushing 10, and a breakable pin 23 engaging one of said series of holes and entering a coincident hole in the flange of the holder 2, as set forth.

No. 56,601. Die for Cutting and Shaping Can-Heads.
(*Matrice pour couper et former les fonds de boites.*)



Benjamin W. Morfoot, Chicago, Illinois, U.S.A., 12th July, 1897
6 years. (Filed 28th April, 1897.)

Claim.—1st. In a device of the kind specified, the dies provided respectively with a recess and punch for forming the outwardly extending tongue on a can-head, a member mounted within said recessed member provided on its upper face with ribs or projections for forming weakened lines in said can-head, and means common to both said members for releasing the finished can-head from said dies, substantially as described. 2nd. In a device of the kind specified, the dies provided respectively with a recess and punch for forming the outwardly extending tongue on a can-head, a member mounted within said recessed member provided on its upper face with ribs or projections for forming weakened lines in said can-head, means for forming an annular flange on said can-head, and means common to both said members for releasing the finished can-head from said dies, substantially as described. 3rd. In a device of the kind specified, the dies provided respectively with a recess and punch for forming the outwardly extending tongue on a can-head, a member mounted within said recessed member provided on its upper face with ribs or projections for forming weakened lines in said can-head, means for forming an annular flange on said can-head, means for forming a central depression in the can-head, and means common to both said members for releasing the finished can-head from said dies, substantially as described. 4th. In a device of the kind specified, a matrix member comprising a ring provided with an opening provided with a lateral extension, a block mounted concentrically within said opening, a vertically movable, spring-actuated ring around said block, annular ribs or projections on the upper face of said block, and a coating punch member adapted to interfit with said opening in said matrix member and with said block

to cut a can-head blank having a tongue, to form an annular flange thereon and to form weakened lines therein corresponding in shape and location with said annular ribs or projections on said block, substantially as described. 5th. In a device of the kind specified, a matrix member comprising a ring provided with an opening provided with a lateral extension, a block mounted concentrically within said opening, a vertically movable, spring-actuated ring around said block, annular ribs or projections on the upper face of said block, a central recess in said block, and a coating punch member adapted to interfit with said matrix member to cut a can-head blank, having an outwardly extending tongue and an annular flange, from weakened lines thereon corresponding in shape and location with said annular ribs or projections on said block, and form a central depression therein corresponding in depth and location with said central recess in said block, substantially as described. 6th. In a device of the kind specified, a matrix member comprising a ring provided with an opening provided with a lateral extension, a block mounted concentrically within said opening, a vertically movable, spring-actuated ring around said block, annular ribs or projections on the upper face of said block, and a coating punch member corresponding in size and outline with said opening in said matrix member, a concentric recess in said punch member adapted to receive said block on said matrix member, a central spring-actuated block in said punch member adapted to interfit with said central recess in said block on said matrix member, and a ring within said recess in said punch member adapted to coat with said annular ribs or projections on said block of said matrix member to form weakened lines in said can-head, substantially as described.

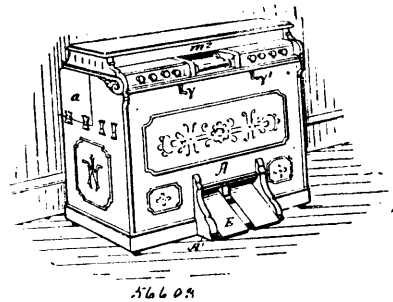
No. 56,602. Welding Compound.

(*Composé pour souder.*)

Henry Eberding, Paterson, New Jersey, U.S.A., 12th July, 1897;
6 years. (Filed 29th April, 1897.)

Claim.—1st. The within described compound consisting of ground or chased steel or iron or filings thereof, borax and ashes, such as wood ashes, substantially as specified. 2nd. The within described compound consisting of ground or chased steel or iron or filings thereof, one part ashes, such as wood ashes, one part, and borax, one part, substantially as and for the purpose described.

No. 56,603. Piano-Player. (Pianista.)



Edward Hollingsworth White, assignee of William Dwight Parker and Edward Hollingsworth White, all of Meriden, Connecticut, U.S.A., 12th July, 1897; 6 years. (Filed 30th April, 1897.)

Claim.—An automatic piano player, comprising a portable cabinet provided with the bellows and bellows operating pedals, and containing the pneumatic actuating mechanism, a tracker therefor adapted for the use of a perforated music sheet as a valve, the pneumatic motor engine and winding roll mechanism for propelling said music sheet, the series of finger-levers operated by said pneumatic actuating mechanism, and projecting at position to overhang the key-board of a piano, said parts arranged for operating in combination, substantially as hereinbefore set forth. 2nd. In a cabinet automatic piano player, the cabinet provided with the end doors *a*, and fall-boards *a'*, in combination with the overhead reed-board, the finger-levers beneath said reed-board, the winding roll, pneumatic action chest and bellows arranged as described, with the space for the reception of the manual breast of a piano between the reed-board and bellows top. 3rd. In an instrument for the purpose specified, the combination with an overhead reed-board, its valves, and a pneumatic actuating mechanism provided with puppets, the finger-levers resting at one end upon said puppets, their other ends thereof adapted for overlying and engaging the manual key of a piano, and the pitman pins standing on said finger-levers, and engaging beneath the reed-duct valves, substantially as set forth. 4th. In an automatic key-board player, the combination with the reed-organ action and pneumatic actuating mechanism provided with reciprocating puppets, of the movable fulcrum-bar having the series of finger levers centrally fulcrumed thereon, the ends of said levers resting on the puppet heads, the reed-valve-operating pitmans respectively standing on said levers over the puppets, and means for raising and depressing said fulcrum-bar to throw said finger-levers from and into contact with the manual keys, without

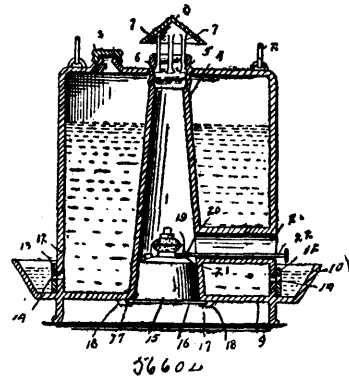
changing the relation of the pitmans and lever-ends upon the puppet-heads. 5th. The combination as described, of the pneumatic chest containing a series of controlling pneumatics and operating pneumatics, and puppets actuated thereby, the tracker having ducts leading to said controlling pneumatics, the music sheet winding-roll, the motor wind-chest beneath said pneumatic-chest, the motor engine and connections for operating said winding-roll from said engine, the motor regulator, the wind-inducing bellows connected with said wind-chest, the bellows-actuating pedals, the series of finger-levers projecting over said bellows, their fore ends resting on said puppets, the movable fulcrum-bar supporting said levers, the superimposed reed-board and wind-chest with organ reeds, reed-duct-valves and mutes, the valve-pitmans steeped on the finger-levers to receive action from the puppets, and means for shifting the music-winding-rolls, the finger-levers, and reed sets severally into and out of action, all substantially as and for the purposes set forth. 6th. In an automatic piano-player, the combination of the actuating puppets I, the movable fulcrum bar T, the bar-supporting springs u, the finger-levers P, fulcrumed on said bar, the cranked rock-shaft V, having arms or cams 14, for depressing said fulcrum bar, and the stop-pull 18, and connections for operating said rock-shaft, for the purpose set forth. 7th. In an automatic key-board player, the combination with a pneumatic action, and a fulcrum supporting bar or frame, of a series of long and short centrally pivoted finger-levers, the heads of said levers ranged in line with their actuating puppets, and their opposite ends respectively disposed for contact with the high black keys and low white keys of the piano manual, the fulcrum-pivots of the long and the short finger levers being disposed at different positions on the fulcrum-bar and relatively proportioning the leverage to the puppet movement and drop of the respective keys, substantially as set forth. 8th. The finger-lever having the under-rounded head with the hole or cavity in the upper side thereof; extending towards the bottom of said head, in combination with the lifter-puppet, the pitman stepped in said cavity, and the fulcrum support for said lever, for the purpose set forth. 9th. In an automatic-organ piano-player, the motor wind-chest internally divided to form the primary exhaust compartment D¹ and secondary compartments D² and D³, in combination with the exhaust bellows, the air motor-engine, the reed-chest passage and regulators K and L, as shown, for the purposes set forth. 10th. In a cabinet automatic piano-player, the combination of the pedal depressing rockers W, W¹, connection rods for moving said rockers, and the stops or tilt levers Y, Y¹ for manipulating said rockers, substantially as set forth. 11th. In a cabinet automatic piano-player, the combination with the cabinet and piano-actuating mechanism, of a rocker or lever adapted for depressing the piano-pedal, and means for operating the same, said rocker adapted for retraction or extension into and from the cabinet, and means for effecting its retraction, substantially as set forth. 12th. In an automatic piano-player, a removable set of sounding devices adapted for detachment when the mechanism is applied to a key-board, and for operation in combination with the playing strikers and pneumatic actuating devices, as set forth. 13th. In an automatic piano-player, in combination, with a series of pneumatically actuated puppets, the finger-levers worked by said puppets, adapted for depressing piano-keys, the slotted vertically movable bar or frame carrying the fulcrum of said finger-levers which swing within the slots, a detached frame or bar carrying a xylophone scale supported beneath said finger-levers, and means for elevating and depressing said fulcrum-bar, for the purposes set forth. 14th. In combination, with the portable cabinet-case containing the pneumatic actuating mechanism, wind-inducing bellows, pneumatic motor-engine and music-sheet propelling devices, and having the finger-levers and the rearwardly overhanging top above said fingers; the rear fall-board and the doors a hinged at their edges to the ends of said cabinet to swing outward for opening the space below said fingers, and provided with supports for the movable back or fall-board when closed, substantially as set forth. 15th. The combination with an automatic piano-player having a pneumatic actuating mechanism controlled by a perforated music-sheet, an organ-reed key-board of a piano; and provided with a space for the reception of a piano breast beneath said fingers; of a removable frame carrying a xylophone or set of vibratory sounding devices adapted for ready adjustment into and from said receiving space and for operation by the finger-levers which are arranged for playing the manual keys. 16th. An automatic piano-player comprising, in combination, a cabinet case supported upon the floor by casters, and provided with a fall-board back, and the doors or removable sections opening at the ends thereof; the series of controlling and operating pneumatics, the tracker and music-sheet, a motor-engine therefor, the pneumatic actuated puppets, the rearwardly projecting finger-levers thereby, the movable fulcrum-bar, and the detached removable frame carrying a xylophone and supported beneath said fingers, all substantially as set forth.

No. 56,604. Drinking Fountain. (Fontaine.)

Francis A. Williams, Jacksonville, Florida, U.S.A., 12th July, 1897; 6 years. (Filed 1st May, 1897.)

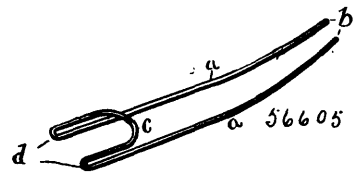
Claim.—A drinking fountain for poultry, comprising the vessel 1, having the orifices 12, and provided with the central conical flue 4, having an internal spiral recess 5 formed in its upper end, the

removable screw cap 3, the transverse fixed tube 23, and the button 9, formed with the projecting flange 10, in combination with the



removable adjustable hood 8, having the dependent prongs 7, 7 formed with laterally projecting teeth 6, 6, the removable lamp 15, the shaft 22 detachably secured to said lamp, and the annular ring 13, having orifices 14, 14, as and for the purpose set forth.

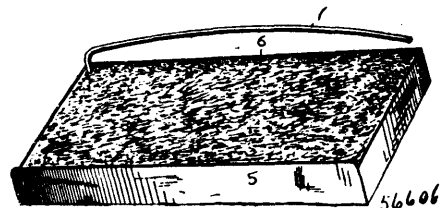
No. 56,605. Hair-pin. (Épingle à cheveux.)



Henry Alonzo Belden, Brooklyn, New York, U.S.A., 12th July, 1897; 6 years. (Filed 1st May, 1897.)

Claim.—1st. A hair-pin constructed of a single piece of wire, consisting of two prongs a, a, curving in their common plane and meeting in a curved spring head c which is bent back over and approximately parallel with the concave side of said prongs so as to form a hook to hold the outer hair in place, thus affording two levers or arms d, d, projecting beyond the hook c and by which the prongs may be separated, substantially as and for the purpose described. 2nd. The herein described hair-pin, the same consisting of a single piece of wire, comprising two prongs a, a, curving toward each other to hold the pin in the hair, and also curving in a common plane and meeting in a curved spring-head c bent back over the concave side of said prongs to form a hook to hold the outer hair in position, thus providing two arms or levers d, d, projecting beyond the hook and by approximating which the other ends of the prongs may be separated, as and for the purpose set forth.

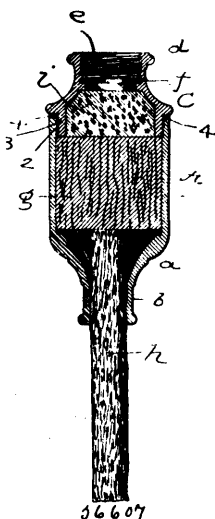
No. 56,606. Envelope Moistener. (Humecteur d'enveloppe)



John George Eversman, Denver, Colorado, U.S.A., 12th July, 1897; 6 years. (Filed 1st May, 1897.)

Claim.—1st. An envelope moistener, comprising a shallow box or tray containing an absorbent pad, and a flap opener composed of a piece of wire attached to the tray and projecting a short distance above the body thereof, as and for the purpose set forth. 2nd. An envelope moistener, comprising a shallow tray or pan filled with some suitable absorbent material, and a flap-opener consisting of a piece of wire fastened to one corner of the tray, extending upward a short distance above the body of the tray to a bend, and extending thence lengthwise of the tray to the opposite corner, where it terminates in a free or unsupported extremity, substantially as described and for the purpose set forth.

No. 56,607. Filter. (Filtre.)

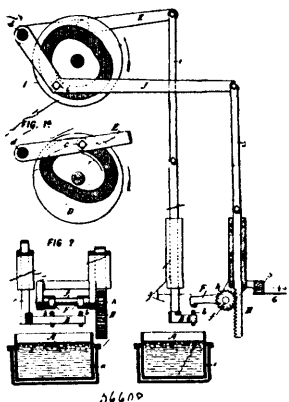


Sydney Starkey, East Liverpool, Ohio, U.S.A., 12th July, 1897; 6 years. (Filed 1st May, 1897.)

Claim.—In a filter of the class described, the combination with the outer case, a cylindrical pipe *b* integrally connected thereto, a detachable cover *C*, a cylindrical section of porous wood situated within said outer case, a sponge situated in said cover, a porous stick of grape-vine situated in the lower end of the cylindrical pipe *b*, all substantially as arranged and set forth.

No. 56,608. Glueing Mechanism.

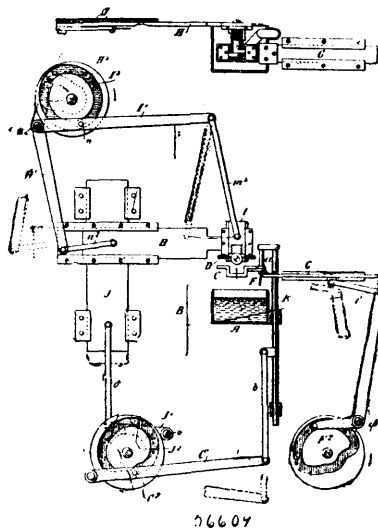
(*Mécanisme pour coller.*)



Henry Eyster Smyser, Brooklyn, New York, U.S.A., 12th July, 1897; 6 years. (Filed 3rd May, 1897.)

Claim.—1st. In a glueing mechanism, the combination with a part for applying glue to another part, of driving mechanism adapted to bring them into contact, then to separate them slightly and pause sufficiently to permit the glue to draw apart, and then to retract the one part from the other, whereby the thread-drawing of the glue during such retraction is prevented. 2nd. In a glueing mechanism, the combination with a plunger, movable to alternately descend into the bath of glue and ascend therefrom, and a part to which it applies glue, of driving mechanism adapted to move said plunger to first bring it into contact with said part, then to separate them slightly and pause sufficiently to permit the glue to draw apart, whereby the thread-drawing of the glue during retraction is prevented. 3rd. In a glueing mechanism, the combination with a plunger, movable to alternately descend into the bath of glue and ascend therefrom, and a dabber to which it transfers glue, of a driving mechanism adapted to move said plunger to first bring it against said dabber, then to move the plunger and dabber apart slightly and pause long enough to permit the glue to draw apart, and then to retract the plunger, whereby the thread-drawing of the glue during such retraction is prevented. 4th. In a glueing mechanism, the combination with a platen or support for the paper or other sheet or plate to be glued, of a dabber for carrying glue to said paper, and a driving mechanism for moving it relatively to said platen to first bring it into contact with the paper, then to separate them slightly and pause sufficiently to permit the glue to draw apart, and then to retract the dabber, whereby the thread-drawing of the glue between the dabber and paper is prevented.

No. 56,609. Mechanism for Applying Adhesive to Paper, etc. (Mécanisme pour gommer le papier, etc.)

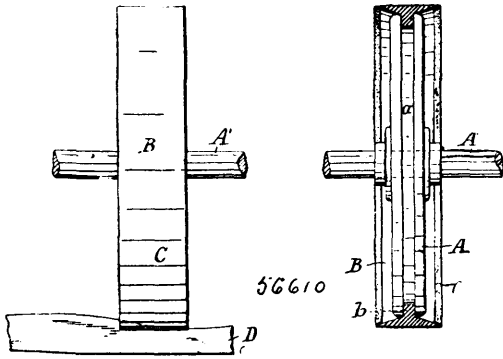


Henry Eyster Smyser, Brooklyn, New York, U.S.A., 12th July, 1897; 6 years. (Filed 3rd May, 1897.)

Claim.—1st. The combination of a vessel containing adhesive material, a plunger movable down beneath the surface of the adhesive and up above its surface, a dabber receiving adhesive from the plunger and transferring it to the sheet to be gummed, mechanism for moving the plunger adapted to cause it to dwell in its upstroke after emerging from the adhesive bath, and a scraper movable across the surface of the plunger during its dwell to remove from it the excess of adhesive material. 2nd. The combination of a vessel containing adhesive material, a plunger movable down beneath the surface of the adhesive and up above its surface, a dabber receiving adhesive from the plunger in its latter position and adapted to apply it to the sheet to be gummed, said dabber constructed with folding wings, and a mechanism for swinging the wings of the dabber from their open position for receiving adhesive to a closed position for pressing it into contact with the sheet. 3rd. The combination of a vessel containing adhesive material, a plunger movable down beneath the surface of the adhesive and up above its surface, and a dabber receiving adhesive from the plunger in its latter position and adapted to apply it to the sheet to be gummed, said dabber constructed with folding wings and movable laterally, and mechanisms for swinging the wings of the dabber and for moving it bodily in lateral direction. 4th. The combination of a vessel containing adhesive material, a dabber constructed with folding wings, means for applying adhesive to said dabber while its wings are open, and mechanism for swinging the wings of the dabber to close them upon the sheet to which the adhesive is to be applied. 5th. The combination, of a vessel containing adhesive material, a dabber constructed with folding wings, means for applying adhesive to one of the wings only of said dabber, and mechanism for swinging the wings of the dabber from their open position for receiving adhesive to close them upon the sheet to be gummed, whereby adhesive is applied by one wing to one side of the sheet, while the other wing serves to press the sheet against the coated wing. 6th. The combination of a vessel containing adhesive material, a plunger movable down beneath the surface of the adhesive and above its surface, a dabber receiving adhesive from the plunger and adapted to apply it to the sheet to be gummed, a laterally moving slide carrying said dabber, and said dabber constructed with folding wings and a mechanism for swinging said wings toward or from each other. 7th. The combination of a vessel *A*, a vertically movable plunger *C*, a dabber *D*, a horizontally movable slide *H* carrying it, a vertically movable slide *J*, carrying the slide *H*, and a driving mechanism for reciprocally moving the respective parts, whereby to convey adhesive material by the plunger to the dabber and thence transfer it by movements of the slides carrying the dabber to the paper. 8th. In a mechanism for applying adhesive, a dabber *D* for receiving the adhesive material and transferring it to the sheet to be gummed, constructed with two folding wings *h, h¹*, each mounted to turn on a pivotal axis, a cam for opening and closing said wings, and intervening connections for communicating motion from said cam to said wings. 9th. In a mechanism for applying adhesive, a dabber *D* for receiving the adhesive material and transferring it to the sheet to be gummed, constructed with two folding wings *h, h¹*, each mounted to turn on a pivotal axis, and provided with pinions, and means for swinging said wings toward and from each other, con-

sisting of a slide, two opposite racks carried by said slide and engaging the respective pinions, and mechanism for moving said slide. 10th. In a mechanism for applying adhesive, a dabber D for receiving the adhesive material and transferring it to the sheet to be gummed, constructed with two folding wings *h, h*¹, mounted to turn both on the same axis, an axial stud *j*, the tubular sleeve *k* turning on said stud and carrying one of said wings, the tubular sleeve *l* turning on said sleeve and carrying the other wing, pinions on said sleeves respectively, racks engaging the respective pinions on opposite sides, a slide carrying the racks, and a driving mechanism for moving the slide.

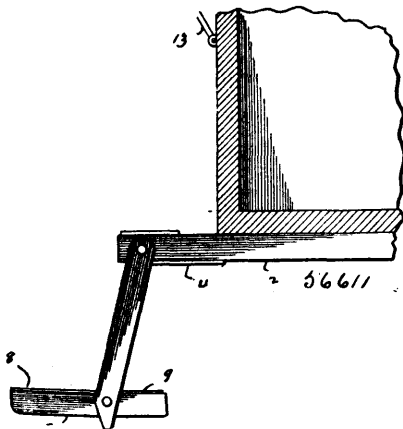
No. 56,610. Sand-papery Wheel. (Roue d'éméri.)



Gustave Stickley, Syracuse, New York, U.S.A., 12th July, 1897; 6 years. (Filed 5th May, 1897.)

Claim.—1st. The combination with a grooved wheel, of a solid elastic belt having normally a smooth even periphery, a tongue to fit in the groove, and the side edges sharp, substantially as shown, and a band of sand-paper on the periphery of the elastic belt having its edges turned over the edge of the belt, substantially as set forth. 2nd. The combination with the grooved wheels, of a solid elastic belt having normally a smooth even periphery, a tongue to fit in the groove, and the side edges sharp, substantially as shown, and a band of sand-paper mounted loosely on the periphery of the elastic belt having its edges turned over the edge of the belt and forming acute angles, and glue on the back side of the sand-paper band but not adhering to the belt, as and for the purpose described. 3rd. As an article of manufacture, a belt formed of sand-paper and provided with a coating of glue or similar stiffening material on its back, and having its edges bent over upon itself and forming acute angles at the bends, as set forth.

No. 56,611. Wagon Step. (Marche de wagon.)

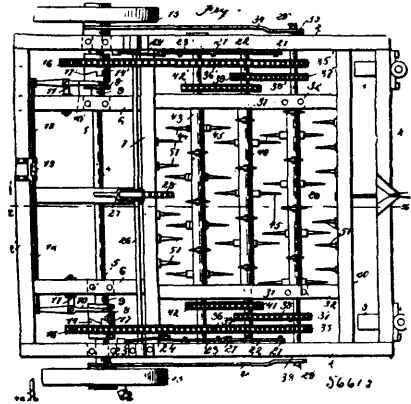


Martha J. Leather, Dawson, Illinois, U.S.A., 12th July, 1897; 6 years. (Filed 21st May, 1897.)

Claim.—1st. The combination with a wagon body having a cross beam, of a step, of a locking plate connected to the beam, links pivoted to the beam and adapted to abut on the locking plate when the step is lowered, and means for holding the step folded against the wagon body. 2nd. The combination with a wagon body, of a cross beam or piece therefor, stops connected to the bottom of the cross piece and projecting out on opposite sides thereof, links pivoted to the end of the cross beam, a step pivoted to the links, stops fastened to the step and adapted to come into engagement with the links, and means for holding the step and links folded against the wagon body. 3rd. The combination with a wagon body, of a cross

beam extending out from the side thereof, locking stops connected to the projecting end of the cross piece, a catch plate connected to the top of the cross piece, links pivoted to the cross piece, a step to which the links are also pivoted, stops connected to the step, and a bail pivoted to the wagon body and adapted for engagement with the step.

No. 56,612. Disc Harrow. (Herse à cylindre.)

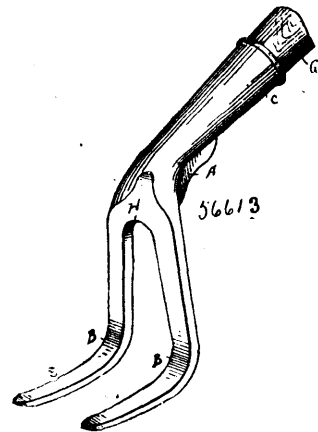


August William Hagstrom and Gustaf Anderson, both of Chino, California, U.S.A., 12th July, 1897; 6 years. (Filed 22nd May, 1897.)

Claim.—1st. A rolling harrow comprising the main frame provided at its forward end with castor wheels and its rear end with traction driving wheels, in combination with the harrow shaft frame, in which are journaled the shafts carrying the harrow teeth, and means substantially as described for rotating said harrow shafts and raising and lowering said frame with reference to the main frame, substantially as and for the purpose set forth. 2nd. A rolling harrow comprising the main frame provided with the driving shaft 4, its sprocket wheels 16, 16¹, sprocket chains 36, 36¹, the shaft 26, its crank-arms 25, pitman 24, bell crank levers 22, 23, and pitmen 21, 21, and the arc-shaped guides 33, in combination with the harrow shaft frame provided with the harrow shafts 29, 40, 43, having teeth 44, 45, and sprocket wheels and driving chains, substantially as shown and described. 3rd. A rolling harrow comprising the main frame, the driving shaft, its traction wheels secured thereto, and the sprocket wheels mounted thereon and adapted to be driven by the clutches on said shaft, in combination with the adjustable harrow shaft frame, comprising the harrow shaft 29, its ends provided with sprocket wheels operated by chains driven by the sprocket wheels on the driving shaft, and having its ends projecting through arc-shaped guides secured to the main frame, and connected to said driving shaft by strap connections, substantially as shown and described.

No. 56,613. Railroad Spiking-fork.

(Fourche à cheville pour chemins de fer.)

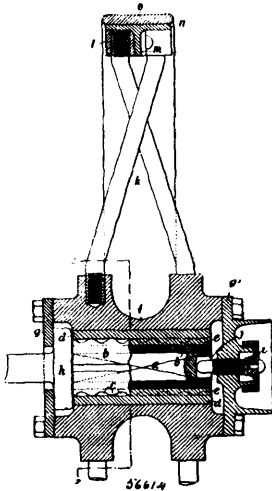


John Q. Myers, Orlando, Florida, U.S.A., 12th July, 1897; 6 years. (Filed 7th May, 1897.)

Claim.—1st. The improved spiking-fork herein described, comprising the handle or stem, the fulcrum point and the curved rocker prongs adapted to straddle the rail and pass completely under an embrace, the tie, whereby the tie and rail are clamped together for spiking. 2nd. In a spiking-fork, the combination of

the stem, the rocker-prongs adapted to straddle the rail and engage beneath the tie, and the reinforcement at the fulcrum or meeting point of the stem and prongs, as set forth.

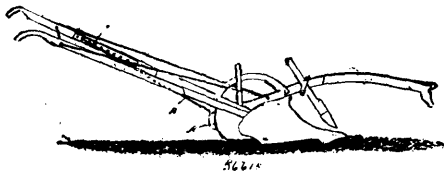
No. 56,614. Vehicle Axle and Wheel.
(Essieu et roue de voitures.)



James Shepherd, Davenport, Chester, England, 13th July, 1897; 6 years. (Filed 9th June, 1897.)

Claim.—1st. A wheel axle consisting of a centre-bar partially or wholly covered with one or more elastic bushes, the outer surface or surfaces of which is or are ribbed, grooved, fluted or the like, and which is or are enclosed in a tube or sleeve, substantially as described. 2nd. A wheel axle consisting of a centre-bar on which is or are fitted one or more elastic bushes enclosed within a metal tube or sleeve, the inner surface of which is ribbed, grooved or fluted, substantially as described.

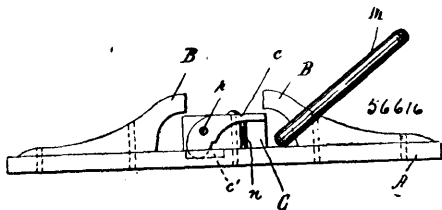
No. 56,615. Charrue. (Plough.)



Jean-Baptiste Avila Richard, Joliette, Québec, Canada, 13 juillet 1897; 6 ans. (Déposé 1er juin 1897.)

Résumé.—Un charrue pourvue d'un crochet A servant à ameublir et pulvériser la couche de terre immédiatement inférieure à celle labourée par le passage de la charrue ordinaire, en substance telle que décrite et pour les fins indiquées.

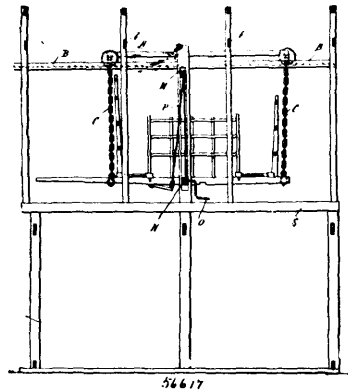
No. 56,616. Crochet. (Hook.)



Jean Baptiste Nazaire Barthell, St. Valier, Québec, Canada, 13 juillet 1897; 6 ans. (Déposé 3 juin 1897.)

Résumé.—Un crochet comprenant une base A, un ou des crochets B, un bloc C pivoté convenablement pour empêcher ou permettre de décrocher une maille M, suivant la position qu'on lui donne; et un taquet c pivoté au bloc C et adapté pour s'engager dans une coche c'; le tout tel que décrit et pour les fins indiquées.

No. 56,617. Apparatus for unloading Hay, Grain, etc. (Appareil pour décharger le foin, le grain, etc.)



Jean Baptiste Nazaire Barthell, St. Valier, Québec, Canada, 13 juillet 1897; 6 ans. (Déposé 7 juin 1897.)

Résumé.—Un appareil pour décharger le foin, le grain, etc., comprenant un chariot A monté sur des rails et pourvu de chaînes servant à suspendre la voiture; une pièce L pourvue d'une poulie M et d'un tambour N et une chaîne P fixée au dit tambour, passant sur la dite poulie et pourvue à son extrémité libre d'un levier R dont on engage le bout dans une crampe r avant de tourner la manivelle pour renverser la voiture. Le tout tel que décrit et pour les fins indiquées.

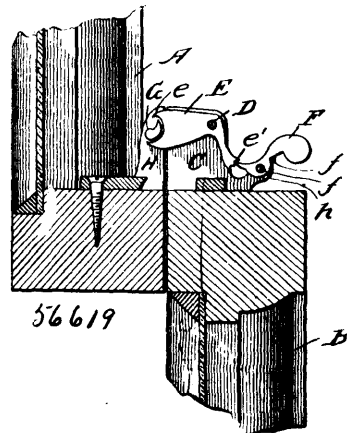
No. 56,618. Snow-shoe and Sledge. (Raquette et traîneau combinés.)



Carl Kiefel, St. Andreasburg, Harz, Prussia, 13th July, 1897; 6 years. (Filed 20th April, 1897.)

Claim.—Snowshoes capable of being used as a sledge characterized by devices whereby the shoes can be locked to one another or easily detached, the shoes being also provided with easily detachable supports c which can be bound together by a seat e, constructed and arranged substantially as hereinbefore described.

No. 56,619. Sash Fastener. (Arrête-croisée.)

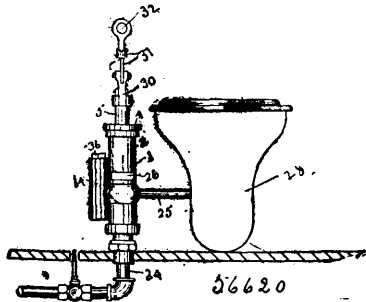


Theodore Baldwin Wilcox and Henry Wilcox, both of Newark, New Jersey, U.S.A., 13th July, 1897; 6 years. (Filed 2nd July, 1895.)

Claim.—1st. An automatic sash fastener, comprising a lug or bar for attachment to one sash, a pivoted weighted catch for attachment to the other sash, and having a yoke to engage said lug or bar automatically as the window is closed, and a pivoted weighted trip or pawl, the lighter ends of said catch and trip having means for automatically interlocking. 2nd. An automatic sash fastener, com-

prising a pivoted gravity catch for attachment to a sash frame, and having a roughened or toothed edge, and a pivoted weighted trip or pawl having a tooth or point adapted to engage the said catch, both the catch and the trip having their pivots carried by the same base plate, stops being provided for limiting the movement of the trip, and the catch being adapted to engage a lug or bar on the meeting rail of the same. 3rd. An automatic sash fastener, comprising a pivoted gravity catch for attachment to a sash, and having a roughened or toothed edge, and a pivoted weighted trip or pawl having a tooth or point adapted to engage the said catch, both the catch and the trip having their pivots carried by the same base plate, and the catch being provided with a claw for engaging and holding a lug or bar on the meeting rail of the sash, whereby the two sashes are automatically bound together when the window is closed.

No. 56,620. Water Closet. (Latrine à eau.)



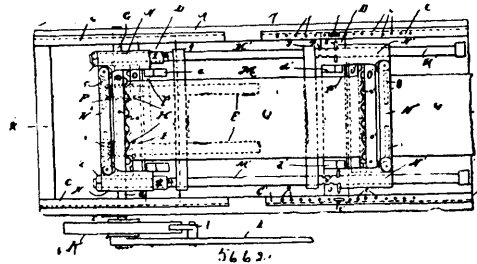
Robert S. Watson, Bay City, Michigan, U.S.A., 13th July, 1897; 6 years. (Filed 10th June, 1897.)

Claim.—1st. The combination in a water closet, of a water cylinder provided at its end portions with openings for the admission and egress of the water and with a partition containing a valve seat between said openings, an air cylinder above said water cylinder and a valve stem passed through said air cylinder and extending into the water cylinder and carrying a valve for engaging with said valve seat, and a piston within the air cylinder, check valves in said piston for admitting air into said cylinder above said piston, an opening in top of said air cylinder for regulating the egress of air from said air cylinder above said piston, and a relief valve for reducing the water pressure upon the main valve while said main valve is being opened, substantially as set forth. 2nd. The combination in a water closet, of the water cylinder provided with ingress and egress openings at its opposite ends and with a partition containing an opening and a valve seat between said openings, an air cylinder located above said water cylinder, a valve stem passed through said air cylinder and into said water cylinder and provided on its lower end with a shoulder and with a reduced portion extending below said shoulder, and carrying a piston within the air cylinder provided with one or more check valves capable of opening when said piston is lowered and of closing when said piston is raised, a hollow valve loosely mounted upon the lower end of said valve stem for engagement with said valve seat and provided with transverse openings above said seat and having on its lower end a seat for a relief valve, a relief valve mounted on the lower end of reduced portion of said valve stem for engaging with said relief valve seat, and a spring for closing said relief valve, means for regulating the egress of air from the cylinder above the piston, substantially as set forth. 3rd. The combination in a water closet, of the water cylinder provided on its opposite ends with water ingress and egress openings and a web containing an opening and a valve seat between said openings, an air cylinder above said water cylinder and provided on its lower portion with side openings for free admission and egress of air therefrom, a valve stem passed through said air cylinder and extending into said water cylinder and carrying a piston within said air cylinder and provided on its lower end with a shoulder and a reduced portion extending below said shoulder, a hollow valve loosely mounted on the lower end of said valve stem for engagement with said valve seat in said web and having an end opening containing a seat for a relief valve and having on its portion above said web a series of relief openings, a relief valve mounted on the lower end of said valve stem for engaging with said seat in said main valve, a spring for closing said relief valve, an air chamber connected at its lower end to the said water chamber below said web for cushioning the water under pressure, and means for regulating the ingress and egress of air from said air cylinder above said piston, substantially as set forth. 4th. In a water closet, the combination of the water cylinder containing a valve seat 10, an air cylinder located above said water cylinder and provided with transverse openings near its bottom, a valve stem 6, passed through said air cylinder and into said water cylinder and provided on its lower end with a shoulder and a reduced portion, and carrying a valve 9, on its lower end for engaging with said valve seat and provided with central opening 18, forming a seat for a relief valve and lateral openings 19, above said seat 10, a relief valve mounted on the lower end of said reduced portion of said valve stem

for engaging with said relief valve seat 18, in the valve 9, a vertical air chamber secured to the outside of said water cylinder and connected near its lower end to said water cylinder below the valve seat 10, a piston mounted on said valve stem in said air cylinder and provided with check valves capable of opening when said piston is lowered and of closing when said piston is raised, means for regulating the outlet of air from said air cylinder above said piston, and means for actuating said valve stem downwardly, substantially as described. 5th. In a water closet, the combination of the water cylinder containing a partition provided with a main valve seat, an air cylinder located above said water cylinder and provided with transverse openings near its bottom, a valve stem passed through said air cylinder and into said water cylinder and provided on its lower end with a shoulder and with a reduced portion extending below said shoulder, a main valve loosely mounted upon said reduced portion and resting against said main valve seat and provided with a central opening having a seat for a relief valve, and with lateral openings in its sides above said valve seat, a relief valve rigidly secured upon the lower end of said reduced portion of the stem and engaging with the valve seat in the main valve, an outlet pipe connected with the water cylinder above the main valve seat, a piston secured to said valve stem within the air cylinder and provided with one or more check valves capable of opening as said piston is lowered and of closing as said piston is raised, an opening in top of said air cylinder and means for regulating the outlet of air through said opening, substantially as set forth. 6th. The combination in a water closet, the water cylinder containing a valve seat, the air cylinder located above said water cylinder and having lateral openings near its bottom, a valve stem passed through said air cylinder and carrying a valve on its lower end for engaging with said valve seat, and a piston in said air cylinder having one or more check valves capable of opening as said piston is lowered and of closing as said piston is raised, a threaded opening in top of said water cylinder, a threaded adjusting pin having one side tapered screwed into said opening for adjusting the size of said opening to regulate the outlet of air from said air cylinder above said piston, as said piston is raised, substantially as and for the purpose set forth.

No. 56,621. Machine for Stretching Leather.

(Machine pour étendre le cuir.)

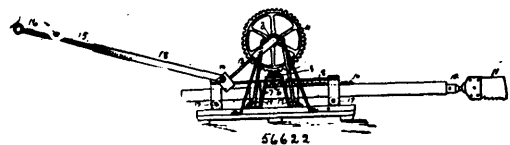


Franklin J. Stanley, New York, U.S.A., 13th July, 1897; 6 years. (Filed 16th June, 1897.)

Claim.—1st. A machine for stretching leather, comprising a rigid framework having longitudinally crossed rails and cross heads connected therewith, one of which cross heads is provided with means for rigid attachment and the other with racks which engage with pinions adapted to be operated by a ratchet and pawl, and a removable framework which comprises two longitudinal tubular rods having sliding and rigidly attached heads mounted thereon and clamping strips mounted within the heads, which heads are further provided with eccentrically arranged levers adapted to engage with the said clamping strips. 2nd. In a leather stretching machine, the combination of a rigid framework having longitudinally movable cross pieces in engagement therewith, one of which cross pieces is provided with a locking device and the other with longitudinal racks which engage with operating pinions, and a ratchet wheel adapted to be operated by a pawl, with removable framework comprising two longitudinal rods, two rigidly attached heads, two sliding heads and the clamping mechanism.

No. 56,622. Reciprocating Saw.

(Scie à mouvement de va-et-vient.)



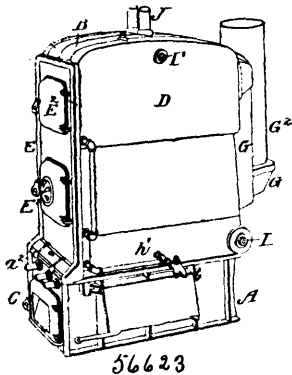
Henry French, Ukhart, Indiana, U.S.A., 13th July, 1897; 6 years. (Filed 10th June, 1897.)

Claim.—1st. The combination with a frame, and standards secured thereto, of a shaft mounted in the standards, a large gear wheel secured to said shaft, a reciprocating bar or timber having a rack

secured thereto, a saw connected with said bar or timber, an interposed pinion which receives motion from the large gear wheel and transmits it to the rack, arms secured to the ends of the said shaft, weights secured to said arms, and means for oscillating the weighted arms, substantially as set forth. 2nd. The combination with the frame or base and guides thereon, of a timber adapted to reciprocate between the guides, a saw connected with said timber, a rack bar on said timber, a transverse shaft, a large gear wheel secured to said shaft, a pinion which receives motion from said gear wheel, the pinion meshing with the rack bar and communicating the motion of the large gear wheel thereto, a weighted arm secured to each end of said transverse shaft, and means for oscillating said weighted arms, substantially as set forth. 3rd. The combination with a frame or base, of guides thereon, rollers on said frame or base, a timber adapted to reciprocate to reciprocate between said guides and on said rollers, a saw connected with the timber standards secured to the frame or base, base, a transverse shaft mounted on said standards, a large gear wheel secured to said shaft, a rack bar on the reciprocating timber, a pinion adapted to receive motion from the gear wheel and transmit motion to said rack bar to reciprocate the said timber, weighted arms secured to the ends of the transverse shaft, a yoke secured to said weighted arms, a rod secured to said yoke, and a handle secured to said rod, substantially as set forth.

No. 56,623. Hot Water and Steam Boiler Furnace.

(*Fournaise de chaudières à eau chaude.*)

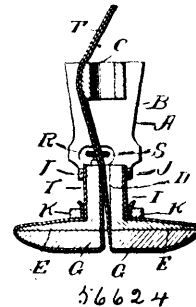


Abram Cox Mott, Philadelphia, Pennsylvania, U.S.A., 13th July, 1897; 6 years. (Filed 10th June, 1897.)

Claim.—1st. The combination of the fire pot, a boiler mounted above the fire pot and having a series of narrow depending tongues extending into the combustion chamber from above and directly over the fire pot, flues communicating with the spaces between the tongues forming the initial passages to direct the products of combustion to the flues, substantially as described. 2nd. The combination in a hot water and steam boiler furnace, of the fire pot, a boiler mounted above the fire pot, extensions of the boiler forming side walls and the back of the fire pot, flues in the boiler section, narrow depending tongues extending over the fire pot and communicating with the top section and the back section of the boiler and forming the initial passages to the flues for the products of combustion, substantially as described. 3rd. The combination in a steam boiler furnace, of the fire pot, the side sections and one or more central sections having depending tongues extending over the fire pot, and flues formed in the said sections for the products of combustion, the tongues forming initial passages to direct the products of combustion to the flues, substantially as described. 4th. The combination in a steam boiler furnace, of the fire pot, the side sections and one or more central sections having depending tongues with solid walls extending over the fire pot, and flues formed by the said sections for the products of combustion, said flues and tongues being at right angles to the front of the furnace, the passages formed by the said tongues being the initial passages for the products of combustion, substantially as described. 5th. The combination in a steam boiler furnace, of the fire pot, the side sections, central sections, flues formed in the side and central sections for the products of combustion, each central section having a depending tongue extending over the fire pot, said portion having an inclined bottom and a leg at the rear forming the back of the combustion chamber, substantially as and for the purpose set forth. 6th. The combination in a steam boiler furnace, of the side and central sections coupled together forming the boiler and sides and rear of the combustion chamber, a front plate forming the front of the combustion chamber, with an independent water section forming the front wall of the fire pot and coupled to the boiler proper, substantially as described. 7th. The combination in a steam boiler furnace, of the fire pot, side and central boiler sections forming the sides and back of the combustion chamber, central sections having depending tongues extending over the fire pot, flues in the said sections for the products of combustion and a down flue G at the

back of the central sections, said down flue communicating with the stack, substantially as described. 8th. A boiler section having a portion forming the crown of the fire box and an integral hollow tongue extending down into the combustion chamber so that when two or more sections are placed side by side the products of combustion will pass between the tongues to the flues, substantially as described. 9th. A steam boiler section consisting of a casting L-shaped in form having a ribbed body portion and an integral depending tongue adapted to extend over the fire pot and a back leg connected to the body portion and to the tongue, substantially as described. 10th. The combination in a steam boiler furnace, of the base section carrying a grate, the hollow side sections and one or more L-shaped central sections communicating with each other and forming the boiler and the combustion chamber, the central sections having narrow depending tongues extending over the fire pot, flues formed between each section, the spaces between the tongues communicating with the flues, and the front plate secured to the front of the boiler and forming the front wall of the combustion chamber, substantially as described. 11th. The combination in a steam boiler furnace, of the base, the hollow side sections and the hollow L-shaped central sections communicating with the side sections, the side sections being inclined so that the combustion chamber will be narrower at the top than at the bottom and a front plate, and flues between the sections communicating with the combustion chamber, substantially as described. 12th. The combination in a steam boiler furnace, of the fire pot, the grate, the hollow side sections and L-shaped central sections forming the back and side walls of the fire pot and combustion chamber, a front plate having a fire door, an independent water front extending back of the front plate and forming the front wall of the fire pot, the said water front being independent of the side and central sections of the boiler, substantially as described.

No. 56,624. Chuck for Sand-papering and Buffing Machines. (*Mandrin pour machines à passer au papier de sable et polir.*)

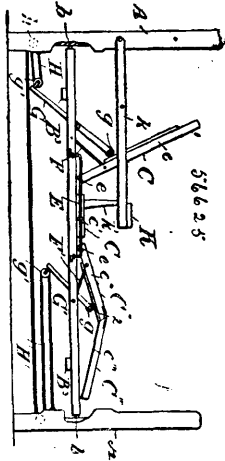


Thomas Edward Keavy, Philadelphia, Pennsylvania, U.S.A., 13th July, 1897; 6 years. (Filed 11th June, 1897.)

Claim.—1st. In a chuck of the character described, a disc having cut-away portions in its perimeter in which strips of abrading material are adapted to be held, as specified. 2nd. In a chuck of the character described, a disc having eccentric cut-away portions in its perimeter in which split strips of abrading material are adapted to be held, as specified. 3rd. In a chuck of the character described, a body having a passage therethrough, a disc carried by said body, said disc having cut-away portions in its perimeter, pads carried on the underside of said disc, clamps pivoted to the chuck, spring plates against which the clamps are adapted to bear, and latches for securing said clamps against said plates, substantially as and for the purpose set forth. 4th. In a chuck, a disc having cut-away portions in its perimeter, said cut-away portions being slightly eccentric with relation to said disc, pads secured to the under surface of said disc, and clamps pivoted to the chuck, whereby strips of abrading material may be secured in place, and the edges thereof prevented from catching upon the object being buffed, as specified. 5th. A chuck consisting of a body having formed therewith a disc, ribs upon the bottom of the disc, said disc having a central slot and portions of its perimeter cut away eccentrically, pads held between the ribs on either side of the slot, spring plates secured to the body of the chuck, clamps pivoted to said body and provided with notched ends, latch-rods slidable in suitable bearings in the body, eccentric pins on the latch rods to engage the notched ends, springs forcing the rods downward, means for turning the rods, whereby the clamps are forced against the spring plates, and strips of abrading material passed through the slot and over the pads having their ends split longitudinally to fit the cut-away portions, said split ends secured between the spring plates and clamps, as specified. 6th. The herein described combination of a body having formed therewith a disc, ribs upon the bottom of said disc, said disc having portions of its perimeter cut away eccentrically, pads held by said ribs, plates I secured to the body of the chuck, clamps K pivoted to said chuck and provided with noses M, in which are notches N, latch-rods held in suitable bearings, springs for forcing said rods downward, and eccentric pins projecting from the lower

ends of said rods, adapted to enter the notches N, whereby when the rods are turned upon their axes the clamps are forced against the action of the plates I, substantially as and for the purpose set forth. 7th. In a chuck, a disc having a passage therethrough and provided with a cut-away portion in its perimeter, strips of abrading material projecting through the passage and having their ends split longitudinally, as and for the purpose described. 8th. A buffing tool consisting of a disc, an opening therethrough, two sections of abrasive material passed through said opening and drawn over the edges of the disc, and so split longitudinally as to approximately conform to the periphery of said disc, substantially as described.

No. 56,625. Invalid Bed (*Lit pour invalides.*)

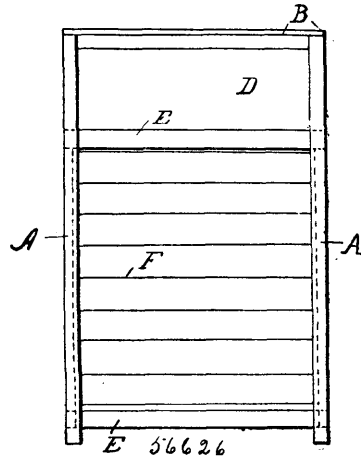


John Melvin Scribner, Bolsover, Ontario, Canada, 13th July, 1897; 6 years. (Filed 12th June, 1897.)

Claim.—1st. In an invalid bed, the combination with a bedstead having head, foot and sides, of a tilting frame having its longitudinal axis pivoted in the head and foot, swivel bars pivoted to said tilting frame and having their ends extending to the sides of the bedstead, supports on said sides adapted to engage the ends of said swivel bars, a jointed spring frame, consisting of a fixed central section, head section and hinged double foot section supported upon said tilting frame, guide bars secured to the sides and central section and adapted to engage eyes on the adjacent ends of the head and foot sections, links connecting the sides with the sides of said head and foot sections, longitudinal bearers on the cross slats of the head and inner foot sections, levers under said bearers pivoted in the tilting frame and adapted to press on said bearers and raise the outer portion of the head and inner foot section, and winding devices pivoted to the bedstead in suitable positions controlling said levers by means of flexible connections, substantially as set forth. 2nd. In an invalid bed, the combination with a bedstead having head, foot and sides, of a tilting frame having its longitudinal axis pivoted in the head and foot, and means of retaining said frame in its normal position, substantially as set forth. 3rd. In an invalid bed, the combination with a bedstead, of a tilting frame pivoted therein on its longitudinal axis, means of retaining said tilting frame in its normal position, a spring frame supported upon said tilting frame and consisting of a fixed central section, a head section and a foot section in two parts hinged together endways, guides retaining the ends of the head and foot sections adjacent to the central section upon the tilting frame, links connecting the outer ends of said head section and hinged ends of foot section with the sides of the bedstead, and means for raising said head and foot ends of said sections when desired, substantially as set forth. 4th. In an invalid bed, the combination of a supporting frame, a spring frame consisting of a fixed central section, a head section and a foot section in two parts hinged endways, guides holding the ends of the head and foot sections adjacent to the fixed section slidingly upon the supporting frame, links connecting the outer ends of the head section and hinged end of the foot section to the supporting frame, and means of raising the said ends of said head and foot sections, substantially as set forth. 5th. In an invalid bed, the combination with a bedstead, of arms pivoted to the posts of the head, a board secured to the free ends of said arms so as to form a table, and arms pivoted to the sides of the bedstead and adapted to support said table horizontally, substantially as set forth. 6th. In an invalid bed, the combination with a bedstead, of a supporting frame secured therein, a sectional spring frame upon said supporting frame and consisting of a fixed central section, a head section and a foot section in two parts hinged together endways, guides to retain the ends of said head and foot sections adjacent to the fixed section slidingly upon the supporting frame, links connecting the outer ends of the head section and hinged ends of the foot section to the supporting frame, bearing

strips on said head and foot sections, levers pivoted to the supporting frame and bearing on said bearing strips, and winding drums pivoted to the head of the bedstead and connected with said levers by suitable means, such as cords and pulleys, and adapted to raise said sections, substantially as set forth.

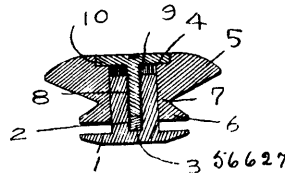
No. 56,626. Washing Board. (*Planche à laver.*)



Marie Rose Asselin, Montréal, Québec, Canada, 13 juillet 1897; 6 ans. (Déposé 10 juin 1897.)

Résumé.—Une planche à laver composée de planches A, B, C, D, d'un rouleau E, d'une tôle de zinc F et de supports S, le tout tel que montré et pour les fins indiquées.

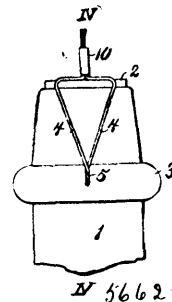
No. 56,627. Button. (*Bouton.*)



Joseph Nathan Gardner, Tuckerman, Arkansas, U.S.A., 13th July, 1897; 6 years. (Filed 14th June, 1897.)

Claim.—1st. As an article of manufacture, a button, made up of a base having a rectangular extension thereon, forming a shoulder between it and said extension, a head having a rectangular opening therein through which said extension projects, and a screw applied to the upper end of said extension, engaging the outer surface of said head, whereby the cloth to which said button is applied is tightly gripped between the lower end of said head and the shoulder formed on said base, substantially as described. 2nd. As an article of manufacture, a button made up of a base having a rectangular extension thereon forming a shoulder between it and said extension, a head having a rectangular opening therein through which said extension projects, and a circular recess in its upper surface, and a screw whose head fits within said circular recess and whose shank engages the extension on said base, whereby the cloth to which said is applied is tightly gripped between the lower end of said head and the shoulder formed on said base, substantially as described.

No. 56,628. Bottle. (*Bouteille.*)



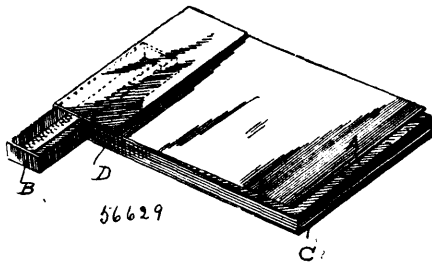
Harwick Winston, Shanghai, China, 13th July, 1897; 6 years. (Filed 14th June, 1897.)

Claim.—1st. A bottle having a neck formed with a rib, and retaining-wires having loops moulded within the rib and extending later-

ally therefrom, substantially as described. 2nd. A bottle having a neck formed with a rib and retaining-wires folded upon themselves and twisted at their inner ends providing loops molded within the rib and extending laterally therefrom, substantially as described. 3rd. A bottle having a neck formed with a rib located at a distance beneath the mouth of the bottle, and retaining-wires having loops moulded within the rib and extending laterally therefrom, substantially as described.

No. 56,629. School Cabinet-tablet.

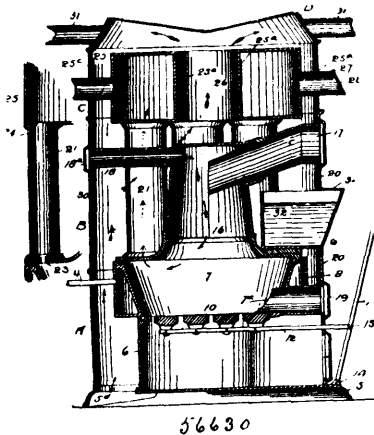
(*Tablette pour pupitres d'école.*)



Wilbur Young, Parsons, West Virginia, U.S.A., 13th July, 1897; 6 years. (Filed 14th June, 1897.)

Claim.—The tablet heretofore described having a back extending beyond the bound end of the tablet, thence upward, and thence forward, overlapping the bound end of the tablet and secured thereto forming a rectangular inclosure beyond the bound end in combination with a drawer sliding inside of inclosure.

No. 56,630. Hot Air Furnace. (*Fournaise à air chaud.*)

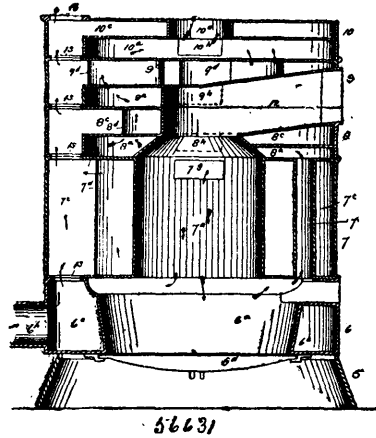


Charles S. Fanrot, Kansas, Missouri, U.S.A., 13th July, 1897; 6 years. (Filed 14th June, 1897.)

Claim.—1st. In a hot air furnace, the combination of the fire pot, the radiating drum, the intermediate flues, the fuel magazine closed at the top, having a lateral feed and a draft flue communicating with the upper part thereof, and a suitable casing surrounding the body of the furnace, said casing being provided with an inlet for the cold air and an exit for the hot air, substantially as described. 2nd. In a hot air furnace, the combination of the fire pot surrounded by a water jacket, the radiating drum, the intermediate flues, the fuel magazine closed at the top, having a lateral feed and a draft flue, and a suitable casing surrounding the body of the furnace, substantially as described. 3rd. In a hot air furnace, the combination of the fire pot, the radiating drum, the intermediate flues, the fuel magazine, the open vapour pan, and a suitable surrounding casing, substantially as described. 4th. In a hot air furnace, the combination of the fire pot, the fuel magazine closed at the top, having a lateral feed chute and a draft flue, the radiating drum having a central opening and an exit for the products of combustion, the flues leading from the fire pot to the radiating drum, and a suitable surrounding casing, substantially as described. 5th. In a hot air "down draft" furnace, the combination of the fire pot, the fuel magazine, the radiating drum, the flues connecting the fire pot and the drum, the cast iron front having openings communicating with

the fire pot and fuel magazine for clean-out and feed purposes, and a suitable surrounding casing, substantially as described. 6th. In a hot air furnace, the combination of the fire pot having a clean-out flue, the top radiating drum, the intermediate flues, the fuel magazine closed at the top, having a lateral feed chute and a draft flue, the open vapour, the cast iron front having an opening for the vapour pan, an opening communicating with the clean-out flue of the fire pot and the feed chute of the fuel magazine, and a suitable casing surrounding the heat radiating parts of the furnace, said casing having an inlet for the cold air and an exit for the hot air, substantially as described.

No. 56,631. Hot Water Furnace. (*Fournaise à air chaud.*)



Charles S. Fanrot and George P. Gross, both of Kansas, Missouri, U.S.A., 13th July, 1897; 6 years. (Filed 14th June, 1897.)

Claim.—1st. In a furnace, the combination of a fire pot section, a fuel magazine section, and any desired number of upper sections, all of the sections being provided with water chambers connected or in circulation with each other, the sections above the fuel magazine section being provided with chambers through which the products of combustion pass, said chambers being connected with the fuel magazine and fire pot by flues leading from the latter and passing through the water chamber surrounding the fuel magazine, the latter being closed at the top and provided with a lateral feed passage and a lateral draft flue communicating with the upper portion thereof, substantially as described. 2nd. In a furnace of the character described, the combination with the fire pot section and any desired number of hot water sections, of the intermediate fuel magazine section, comprising the fuel magazine, the water chamber surrounding the same, and the flues leading from the fire pot through said water chamber and communicating with the upper sections, the fuel magazine being closed at the top and provided with a lateral feed passage and a lateral draft flue leading to the upper part thereof, substantially as described. 3rd. In a furnace of the character described, the combination of the fire pot section, the fuel magazine section, and one or more hot water sections located above the fuel magazine section, the hot water sections being provided with chambers which receive the products of combustion from the fire pot, via flues located in the fuel magazine section, said chambers of the hot water sections being connected by flues, the arrangement being such that the flues of the contiguous sections are placed out of line with each other, substantially as described.

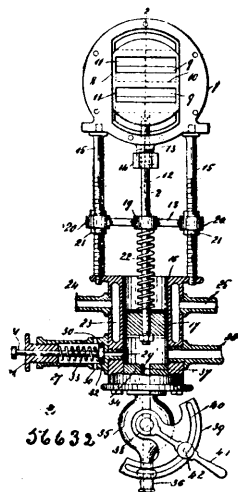
No. 56,632. Governor for Steam Engines.

(*Gouverneur pour machines à vapeur.*)

Edwin Burger Thornburn, Hightstown, New Jersey, U.S.A., 13th July, 1897; 6 years. (Filed 14th June, 1897.)

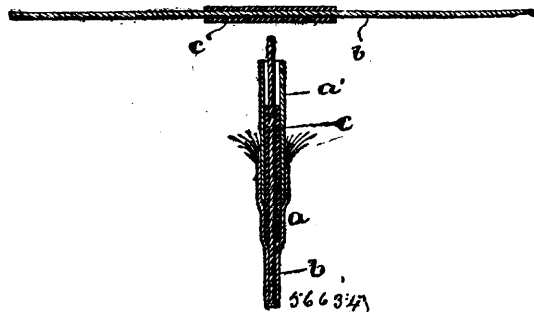
Claim.—1st. A governor for steam engines, consisting of a valve casing, a sliding valve mounted therein, a cylinder connected with said casing, a piston mounted in said cylinder, a rod by which said valve and said piston are connected, a spring mounted on said rod and bearing on said piston, and provided with means for adjusting the pressure thereof, and an air pipe which communicates with the lower end of said cylinder, and is adapted to supply air under pressure thereto, and escape passages for said air, and means for controlling the same, substantially as shown and described. 2nd. A governor for steam engines, consisting of a valve casing, a sliding valve mounted therein, a cylinder connected with said casing, a piston mounted in said cylinder, a rod by which said valve and said

piston are connected, a spring mounted on said rod, and bearing on said piston, and provided with means for adjusting the pressure



able end-piece which is hinged to one of the side pieces and provided with an inclined flange opposite and parallel with the hinge and formed to enter said open end and abut against one or more of said stiffening-strips, the inclination of said flange being such that either the front or rear edge of the flange may hold the movable end-piece in place by frictional contact with the interior of the box. 3rd. A box or carton having a swinging end-piece, a movable ejecting device, and a flexible connection between said end-piece and ejecting device.

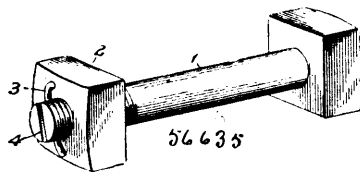
No. 56,634. Tip for Lacings. (Pointe pour lacets.)



Eleazer Kempshall, Newton, Mass., U.S.A., 13th July, 1897; 6 years. (Filed 14th June, 1897.)

Claim.—1st. A woven lacing having its end portions internally stiffened. 2nd. A woven lacing having practically rigid tips composed of woven envelopes integral with the body of the lacing, and internal stiffening sections interlocked with said envelopes. 3rd. A lacing comprising a woven body, a fibrous cord within said body, and plastic bonding and stiffening material interposed between the end portions of the core and body and united therewith, whereby the body and core are firmly united at their ends and the ends of the lacing are suitably stiffened. 4th. A lacing comprising a woven body, a fibrous core within said body, and tubes of plastic material interposed between the end portions of the body and core and pressed into the fibres of both the body and core to unite their end portions and stiffen the ends of the lacings. 5th. A tip for lacings, formed by forcing plastic material from the interior of the lacing outward, and thereby interlocking said material with the meshes of the lacing. 6th. The improved method hereinbefore described, of making tips on woven lacings, the same consisting in enclosing plastic sections in the end portions of a woven lacing body and then interlocking said end sections with said end portions by heat and pressure. 7th. The improved method hereinbefore described, of making tipped lacings, the same consisting in assembling a woven body and a series of stiffening sections of plastic material, the sections being in contact with the inner surface of the body, subjecting the said parts to heat and pressure at the points where the said sections are located, whereby the sections are softened and interlocked with the meshes of the woven body, and then severing the interlocked portions of the body and stiffening sections. 8th. The improved method of making tipped lacings, which consists in assembling a tubular woven body, a fibrous core or cord, and a series of sections of plastic material, the core being within the body and the sections between the body and the core, subjecting the said parts to heat and pressure at the points where the said sections are located, whereby the sections are softened and their material is interlocked with the meshes of the woven body and the fibres of the core, the portions of the body and the core thus treated being stiffened by the hardening of said material, and then severing said stiffened portions. 9th. As an article of manufacture, a lacing comprising a woven body, and end-stiffeners of plastic material placed within the end portions of said body and interlocked with the meshes of said end portions.

No. 56,635. Nut Lock. (Arrête écrou.)

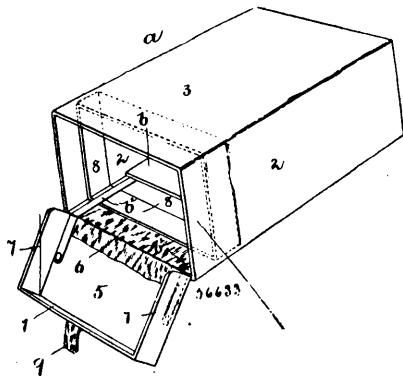


Milford C. Hopper, Woburn, Mass., U.S.A., 14th July, 1897; 6 years. (Filed 14th June, 1897.)

Claim.—A locking device for nuts, comprising a wire secured within an opening in the nut, the inner end of which is splayed or chamfered to retain therein one end of the said wire, the other end being adapted to engage a groove in the end of the bolt, substantially as described.

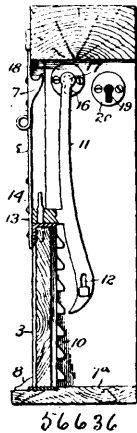
thereof, and an air pipe which communicates with the lower end of said cylinder, and is adapted to supply air under pressure thereto, and escape passages for said air, and means for controlling the same, the walls of said cylinder being also provided with an annular chamber, and water egress and ingress pipes communicating therewith, substantially as shown and described. 3rd. A governor for steam engines, consisting of a valve casing, a sliding valve mounted therein, two screw-threaded side rods connected with said casing, a cylinder connected with said rods, a piston mounted in said cylinder, a cross rod mounted on said side rods and adjustable thereon, a rod connecting said piston and said valve, and passing through said cross rod, a spring mounted on said rod between said piston and said cross rod, and means for supplying air under pressure to the lower end of said cylinder, substantially as shown and described. 4th. A governor for steam engines consisting of a valve casing, a sliding valve mounted therein, two screw-threaded side rods connected with said casing, a cylinder connected with said rods, a piston mounted in said cylinder, a cross rod mounted on said side rods and adjustable thereon, a rod connecting said piston and said valve, and passing through said cross rod, a spring mounted on said rod between said piston and said cross rod, and means for supplying air under pressure to the lower end of said cylinder, said cylinder being also provided with escape ports or passages for said air, and means for controlling the same, substantially as shown and described.

No. 56,633. Shoe Box or Carton. (Boite pour chaussures.)



Leonard LeRoy Doble, Lawrence, Mass., U.S.A., 13th July, 1897; 6 years. (Filed 14th June, 1897.)

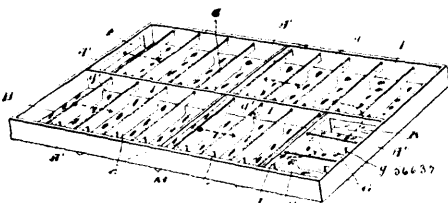
Claim.—1st. A box or carton comprising four side-pieces and an end-piece permanently connected and forming a comparatively rigid box which is open at one end, and a movable end-piece which is hinged to one of the side-pieces and provided with an inclined flange opposite and parallel with the hinge, the inclination being such that either the front or rear edge of the flange may bear frictionally on the other side-pieces and hold the said end-piece in position to close the open end of the box. 2nd. A box or carton comprising four side-pieces and an end-piece permanently connected and forming a comparatively rigid box which is open at one end and is provided with internal stiffening-strips adjacent to said open end, and a mov-

No. 56,636. Grain Door. (Porte à grain.)

56636

Andrew J. Gold, Staples, Minnesota, U.S.A., 14th July, 1897; 6 years. (Filed 14th June, 1897.)

Claim.—1st. The combination with a door jamb, or frame, of a door slidingly mounted therein, ratchets upon the outside of said door adjacent to its outer edges, levers fulcrumed in the inner edges of said frame whose lower ends are adapted to engage the teeth on said ratchets to raise said door, and arms or projections on said levers adapted to engage the upper ends of said door for holding the latter securely in its closed position. 2nd. The combination with a door frame or jamb, of a door slidingly mounted therein, ratchets upon the outside of said door adjacent to its outer edges, levers fulcrumed in the inner edges of said frame whose lower ends are adapted to engage the teeth on said ratchets to raise said door, arms or projections on said levers, and screws extending through said arms adapted to engage the upper end of said door to force said door downward and hold the same securely in its closed position. 3rd. The combination with a door frame having recesses in its upper inner edges and plates having key hole slots therein covering said recesses, of a door slidingly mounted in said frame, ratchets upon the outside of said door adjacent to its outer edges, levers fulcrumed in elongated slots in the inner edges of said frame, whose lower ends are adapted to engage the teeth on said ratchets for raising the door and headed pins projecting laterally from the upper ends of said levers, the said pins being adapted to be inserted through the key hole slots in the plates covering the recesses in the inner edges of said frame. 4th. The combination with a door frame having recesses in its upper inner edges and plates having key hole slots therein covering said recesses, of a door slidingly mounted in said frame, ratchets upon the outside of said door adjacent to its outer edges, levers fulcrumed in elongated slots in the inner edges of said frame, whose lower ends are adapted to engage the teeth on said ratchets for raising the door, arms or projections on said levers, screws extending through said arms, adapted to engage the upper end of said door to force the latter downward and hold it in closed position, and laterally extending headed pins on the upper ends of said levers, the said pins being adapted to be inserted through the key hole slots in the plates covering the recesses in the inner edges of said frame, substantially as and for the purpose described.

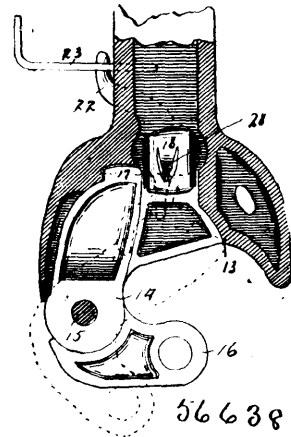
No. 56,637. Sieve. (Appareil à bluter.)

56637

Donald McMillan, Barrie, Ontario, Canada, 14th July, 1897; 6 years. (Filed 14th June, 1897.)

Claim.—1st. A sieve provided with guide-pieces in line with the direction of travel of the material to be sifted, and having suitably-shaped cross-slats extending between the sides of the sieve and the guide-pieces, their lower edge being a short distance above the bottom of the sieve, substantially as described and for the purpose specified. 2nd. In a sieve capable of gyratory motion, a cross slat G, notched at g , and g' , extending between a guide-way and a side of the sieve and substantially at right angles thereto, the larger notch being next to the side and the cross-slat being so located that there may be a space left between its bottom edge and the upper surface of the bottom of the sieve, substantially as described and for

the purpose specified. 3rd. In a sifting machine, a sieve to which suitable motion may be imparted, comprising the following elements:—the sides A, A', with outlet F, for tailings, the guide-piece I, with opening K, formed therein, the transverse guide-piece J, the sieve bottom L, and a series of notched cross-slats G, suitably located, substantially as described and specified. 4th. In a sifting machine, the combination with the sides of an oblong-shaped sieve provided near one corner with a discharge opening for the tailings, of a centrally-located guide-piece extending longitudinally through the sieve and having at the end distant from the discharge opening an opening for the material being sifted, a series of notched cross-slats equally spaced and extending between the longitudinal guide-piece and the longer sides of the sieve and substantially at right angles thereto, a transverse guide-piece located near the corner which is diagonally opposite to that where the discharge opening is situated, and one or more notched cross slats extending between the transverse guide-piece and one of the shorter sides of the sieve substantially at right angles thereto, and a bottom of wire mesh or textile material forming a space between its upper surface and the lower edge of the cross slats of the height of the layer of material which passes through the sieve, substantially as specified.

No. 56,638. Car Coupling. (Attelage de chars.)

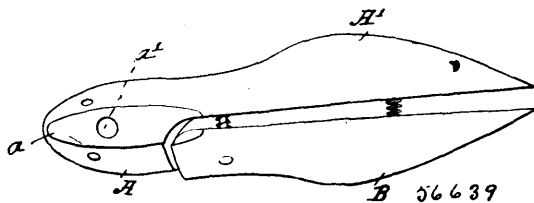
56638

Eugene D. Whipple, Greston, Iowa, U.S.A., 14th July, 1897; 6 years. (Filed 14th June, 1897.)

Claim.—1st. In a car-coupler of the vertical plane type, the combination with a pivoted knuckle, of mechanism for causing the same to assume an open position consisting of a movable member, extension carried by said member pivoted on a horizontal axis, and capable of a movement forward and backward thereon, and means for causing the movable member to describe a partial rotation on a vertical axis, and thereby cause the extension carried by the movable member to engage the knuckle and force the same into an open position. 2nd. In a car-coupler of the vertical plane type, the combination with a pivoted knuckle of mechanism for causing the same to assume an open position, consisting of a pivotally mounted movable member, pivoted on a horizontal axis, and capable of a movement forward and backward thereon, an extension carried by said member and means for causing the movable member to describe a partial rotation on a vertical axis, and thereby operating the extension to engage the knuckle, and force the same into an open position. 3rd. In a car-coupler of the vertical plane type, the combination with the pivoted knuckle, of mechanism for causing the same to assume an open position consisting of a pivotally mounted movable member, means for causing the latter to rotate about a horizontal axis extended transversely of the draw-head, an extension carried by said member and means for causing the movable member to describe a partial rotation on a vertical axis and thereby operate the extension to engage the knuckle and force the same into an open position. 4th. In a car-coupling of the vertical plane type, the combination with the pivoted knuckle of mechanism for causing the same to assume an open position consisting of a pivotally mounted movable member, an extension carried by said member, manually-operating devices for actuating the movable member to cause the same to partially rotate on a vertical axis, and thereby operate the extension to engage the knuckle and force the same into an open position. 5th. In a car-coupling of the vertical plane type, the combination with the pivoted knuckle of a rotatably moving locking member, means for causing the latter to rotate on a horizontal axis extended transversely of the draw-head, a fixed

pivot therefor, an extension carried by said movable locking member, and means for bringing the said movable locking member into engagement with the fixed pivot, and for partially rotating said member thereon, whereby the extension engages the knuckle, and forces the same into an open position. 6th. In a car-coupling of the vertical plane type, the combination with the pivoted knuckle of a rotatably mounted locking member, means for causing the latter to rotate about a horizontal axis extended transversely of the draw-head, a projection carried thereby and a recess therein, a fixed pivot adapted to be engaged within said recess and means for causing a partial rotation of the locking member when the engagement aforesaid is effected, whereby the projection forces the knuckle into an open position. 7th. In a car-coupling of the vertical plane type, the combination with the pivoted knuckle, of the swinging rotatably mounted locking member, means for causing the latter to rotate about a horizontal axis extended transversely of the draw-head, a projection carried thereby, a fixed pivot adapted to be engaged with said locking member, an operating arm actuated by levers from the side of the car to preliminarily bring the locking member into engagement with the fixed pivot, and also effect a partial rotation of the locking member on said pivot whereby a projection carried by said locking member engages against and forces open the knuckle. 8th. In a car-coupling the combination with the pivoted knuckle, of a rotatably mounted locking member, a shoulder thereon constituting a pivot for said member to swing back and forth, a fixed pivot normally disengaged from the locking member when the latter is in its locking position, and means manually operated, whereby the locking member is swung backward, and at the same time upward to engage with the fixed pivot thereby to partially rotate the locking member, and cause an extension carried thereby to engage and force open the knuckle. 9th. In a car-coupling the combination with a pivoted knuckle of a rotatably mounted locking member adapted to be moved back and forth, a fixed pivot normally disengaged from the locking member when the latter is in its locking position, a recess within said locking member and means manually operated whereby the locking member is swung backward, and at the same time upward to engage with the fixed pivot, thereby to partially rotate the locking member, and cause an extension carried thereby to engage and force open the knuckle. 10th. In a car-coupling the combination with a pivoted knuckle of a swinging locking member having a shoulder on the rear portion thereof adapted to engage the wall of the draw-head and hold the locking member in its locking position. 11th. In a car-coupling the combination with a pivoted knuckle of a swinging locking member having a shoulder on the rear portion thereof adapted to engage the wall of the draw-head, and hold the locking member in its locking position, and a holding stop also adapted to engage the wall of the draw-head and hold the locking member in an unlocked position. 12th. In a car-coupling the combination with a pivoted knuckle of a swinging locking member, a projection extending therefrom and an arm integral therewith, and of a crank shape, manually-operated means for moving forward said operating-arm and thereby raise and move backward the locking member, a recess in the locking member adapted to engage a fixed pivoted projection from the draw-head when the locking block is raised whereby in the continued forward movement of the operating arm the locking member describes a partial rotation, causing the projection carried thereby to engage the knuckle and force the same into an open position.

No. 56,039. Last. (Forme.)



Oliver A. Miller, assignee of Andrew Hardy Baker, both of Brockton, Mass., U.S.A., 14th July, 1897; 6 years. (Filed 3rd June, 1897.)

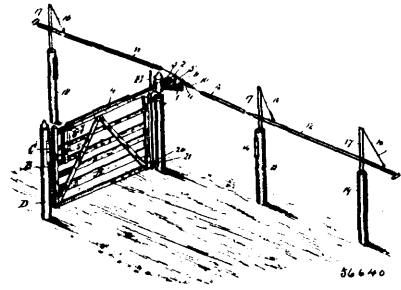
Claim.—1st. A last consisting of a heel part having a heel provided with a crown, and a divided forepart, combined with a spring located in said forepart and acting normally to keep it separated in the shoe, substantially as described. 2nd. A shoe filling and holding last presenting a divided forepart, springs placed in the said forepart to normally move one part away from the other part, and stops connected with one part and extended loosely through the other part to act as guides for the movable part and to also limit the extent of movement of the movable part from the other part, substantially as described.

No. 56,040. Gate Operating Gear.

(Appareil pour ouvrir et fermer les barrières.)

Malcolm Cole, assignee of Isaac Cole, both of Kinmount, Ontario, Canada, 14th July, 1897; 6 years. (Filed 15th June, 1897.)

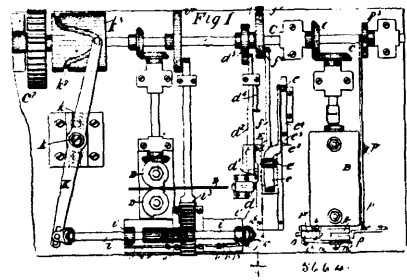
Claim.—The combination with the gate having a top rail extension 1, rearward of the pintle, of the Y-shaped lever 2, pivoted



thereto, two branches of said lever connected by chains 3, 3', to a pull wire 4, and by bell cranks and wires to the spring latch, and the other branch of said lever connected to one end of another lever 9, pivoted to said rail-extension 1, and pull and push rods 11, 12, connected to the opposite end of said lever 9, as set forth.

No. 56,641. Machine for Rolling Wire.

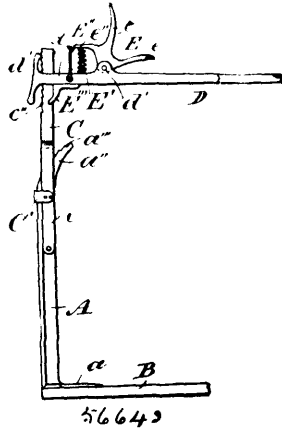
(Laminoir pour fil de fer.)



William George Allen, Hartford, Connecticut, U.S.A., 14th July, 1897; 6 years. (Filed 16th June, 1897.)

Claim.—1st. In a machine for rolling wire stock, a pair of reducing rolls having two sets of grooves or acting surfaces in the same line, for acting successively upon the stock, the peripheries of the rolls being cut away between contiguous sets of grooves, in combination with feed-mechanism for advancing the stock to the rolls, then withdrawing it, and advancing it for another pass, substantially as described. 2nd. In a machine for rolling wire stock, a pair of reducing rolls having a set of flat shallow grooves therein, for flattening the wire stock, and a set of grooves of semi-circular cross-section, in line with said flat grooves, for restoring the circular cross section of the stock, the peripheries of the rolls being cut away between contiguous sets of grooves, in combination with feed-mechanism for advancing the stock to the rolls for the action of the shallow flat grooves, then withdrawing the stock and turning it a quarter of a rotation, and again advancing it to the rolls for the action of the grooves of semi-circular cross-section, substantially as described. 3rd. In a rolling machine, the combination with the rolls for acting upon the stock, of a device constructed and arranged to act upon said stock to prevent it from twisting under the action of the rolls, and means for automatically throwing said device into operation during a portion of the rotation of the rolls, substantially as described. 4th. In a rolling machine, the combination with the rolls for acting upon the stock having two sets of grooves therein, one set for flattening the stock and the other set for restoring the circular cross-section, the peripheries of the rolls being cut away between contiguous sets of grooves, a device constructed and arranged to press upon or grip the stock as it is fed to the rolls, and means rotating with one of the rolls and actuating the gripping device while the rolls are acting on the flattened stock, substantially as described. 5th. In a rolling machine, the combination with the rolls having acting and non-acting peripheral surfaces, of a device constructed and arranged to grip the stock as it passes through the rolls to prevent twisting, and a disc located at the end of and rotating with one of the rolls and having a peripheral extension corresponding with the acting surface of the roll for actuating the gripping device, substantially as described. 6th. In a rolling machine, the combination with the rolls and a single feeding device for successively presenting the stock to said rolls, of a carriage for successively delivering the stock in proper lengths to the feeding device, and means on the carriage for gripping and releasing the stock at the proper times, substantially as described. 7th. In a rolling machine for reducing the diameter of the stock for a portion of its length only, the combination with the rolls having segmental peripheral acting surfaces, the rolls being cut away between the ends of said surfaces, of a movable stop at the exit side of the rolls and means for moving said stop into and out of the path of the stock at the proper times, substantially as described.

No. 56,642. Bag-Holder. (Accroche-sac.)



John J. Geary, Madoc, Ontario, Canada, 14th July, 1897; 6 years. (Filed 16th June, 1897.)

Claim.—1st. In a bag-holder, the combination of a standard having a foot adapted to be secured to a base, a curved upper end stepped on the convex edge, a vertical slot below said curved end, an extension-piece having a forked end adapted to slide on the upper end of said standard, a pin passing through said forked end and through the slot in the standard, a strap secured to said forked end above said pin and passing around the rear edge of said standard and adapted to engage the steps of the upper curved end of said standard, a bail having a mouth nearly equal to the width of the mouth of the bag to be held by it and provided with a central arm or stem having a mortise adapted to receive and slide upon the upper end of the extension-piece aforesaid, a catch hook at the end of said arm, ratchet-teeth at the rear edge of said extension-piece adapted to be engaged by said hook, a clump in the shape of a bell crank lever pivoted in lugs upon said bail stem and having arms corresponding to the rear bars of said bail and a hand-piece and check-piece, a spring between said check-piece and bail stem pressing said lever forward on the arms of said bail end a clevice pivoted to said arm and adapted to hold said check-piece down and the clump arms up, substantially as set forth. 2nd. In a bag-holder, the combination with a jointed standard, of an arm or stem adapted to be carried approximately at a right angle to and on the upper end of the extension-piece of said standard by means of a mortise in said arm, a bail on said arm on the bars of which the edges of the mouth of the bag to be held is lapped and an adjustable spring-pressed clump pivoted upon said arm, said clump provided with arms covering the rear bars of said bail and with a hand-piece and check-piece, a spring between said stem and check-piece pressing said check-piece up and the clump arms down and a clevice pivoted to said stem adapted to hold said check-piece down and the clump arms up, substantially as set forth. 3rd. In a bag-holder, the combination of a bail around the bars of which the edges of the mouth of a bag may be lapped, a central stem or arm on said bail, a jaw at the lower edge of the end of said stem, a bell crank lever pivoted upon said stem or arm having arms covering the rear bars of said bail and provided with a hand-piece and check-piece, a spring between said arm and check-piece pressing the latter upwards and the clump arms down and a clevice pivoted to said arm and adapted to engage said check-piece and holding it down and the clump arms up, substantially as set forth. 4th. In a bag-holder, the combination of a bail adapted to have the edges of the mouth of a bag lapped round it and having an angle section, a central stem or arm on said bail, pins at the rear corners of said bail to afford additional hold to the edges of the mouth of a bag lapped around the bars of said bail and a bell crank lever pivoted upon said arm and having clamp arms covering the rear bars of said bail, substantially as set forth. 5th. In a bag-holder, the combination of a standard adapted to be placed and held upright, an upper curved end stepped on the convex edge, a vertical slot below said curved upper end, an extension-piece having a forked lower end adapted to slide on the sides of said standard, a pin passing through said forked end and through said slot in the standard and a strap secured to said forked end above said pin and passing around the rear edge of said standard and adapted to engage the steps of the curved upper end thereof, substantially as set forth.

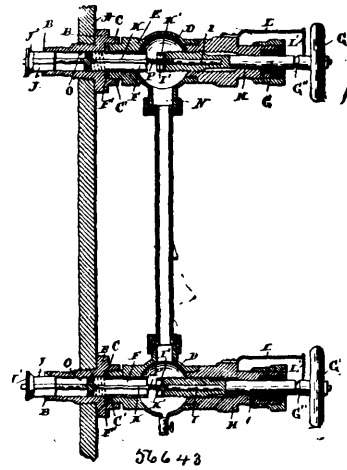
No. 56,643. Gauge Cock or Globe Valve. (Robinet-jauge.)

(Robinet-jauge.)

Elmer E. Kerns, Bradford, Pennsylvania, U.S.A., 14th July, 1897; 6 years. (Filed 16th June, 1897.)

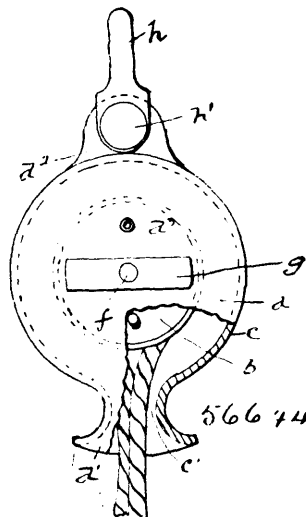
Claim.—1st. The combination of bushing B, elongated check valve J for closing the same and formed with outwardly projecting pin K, the valve body secured to the bushing, tube F in line with the bushing and projected into the valve body to form a seat, pin K of valve

J extending through the tube and adapted when the valve is closed to project through the inner end of the tube, the valve stem, and a



valve adapted to be moved thereby to and from its seat on the tube, said valve when being seated being adapted to press longitudinally on pin K and thereby open valve J, substantially as shown and described. 2nd. The combination of elongated bushing B having the outer end of its bore enlarged to form a seat or shoulder, externally flanged tube F adapted to rest on said seat and aligning with the bushing, the valve body enclosing the tube and attachably secured to the bushing where it also clamps the tube in place, said tube projecting well into the valve body to form a seat, check valve J for the bushing, the valve stem, valve I adapted to be operated thereby to open and close the tube, and pin K arranged between valves I and J and operating through tube F to open valve J when valve I is being seated in the manner and for the purpose substantially as herein shown and described. 3rd. The combination of the bushing, the valve body, the check valve for the bushing, pin K projected from the check valve through a seat in the valve body, valve stem G and removable valve I carried thereby and adapted to seat in the valve body and formed with central metallic projection K' in line with and adapted to engage pin K, for the purpose substantially as herein shown and described. 4th. The combination of the grooved longitudinally movable valve stem, the valve casing, spring arm L secured thereto and extending longitudinally with the stem, and the lateral extension L' at the outer end of the arm adapted to engage the groove of the stem, for the purpose substantially as herein shown and described.

No. 56,644. Fire Escape. (Sauveteur d'incendie.)

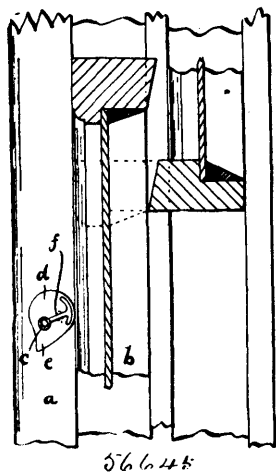


Cyrus Electus Harvey, Waterloo, Quebec, Canada, 14th July, 1897; 6 years. (Filed 16th June, 1897.)

Claim.—1st. A fire escape, consisting of a rope, a friction device comprising a cylindrical block formed with a worm recess adapted

to have a portion of the rope coiled about the same, a pair of laterally projecting lugs formed upon each end of said block, and a central longitudinal perforation therethrough; an open ended cylindrical casing of slightly larger diameter than the circumference of the block, and provided with a flared opening in the side thereof, and perforations in the closed end thereof to receive the laterally projecting lugs upon the adjacent side of the friction block, and a perforation concentric of said closed end to register with the perforation through the friction block, a cover for the open end of said casing, said cover having an extension corresponding in contour to the longitudinal section of the flared opening, perforations adapted to receive the projections upon the adjacent side of the friction block, and a perforation adapted to register with the perforation through the friction block, a screw-threaded bolt adapted to be passed through the central perforations through the friction block and the perforation registering therewith, a cleat-like nut screwed upon said bolt, and means whereby said casing may be suspended, for the purpose set forth. 2nd. A fire escape consisting of a rope, a friction device comprising a cylindrical block *b*, formed with a worm recess *b*¹, adapted to have a portion of the rope coiled about same, a pair of laterally projecting lugs, *b*², formed upon each end of said block, and a central longitudinal perforation *b*³, therethrough, an open ended cylindrical casing *c* of slightly larger diameter than the circumference of the block, and provided with a flared opening *c*¹, in the side thereof, a perforated wing section *c*², and perforations *c*³, *c*³, in the closed end thereof to receive the laterally projecting lugs *b*², upon the adjacent side of the friction block, and a perforation, *c*⁴, concentric of said closed end to register with the perforation *b*³, through the friction block, a cover *d*, for the open end of said casing, said cover having an extension *d*¹, corresponding in contour to the longitudinal section of the flared opening *c*¹, a perforated wing section corresponding to the wing section *c*², and perforations *d*², *d*³, adapted to receive the projections *b*², upon the adjacent side of the friction, and a perforation *d*⁴, adapted to register with the perforation *b*³, a screw-threaded bolt *f*, adapted to be passed through the perforations *b*³, *c*⁴ and *d*⁴, a cleat-like nut *g*, screwed upon said bolt, a staple *h*, having its ends flattened and perforated, and a bolt *h*¹, adapted to be passed through the perforation in said staple and said perforated wing sections, and receive a retaining nut *h*², as and for the purpose set forth.

No. 56,645. Sash Holder. (Arrête-croisée.)



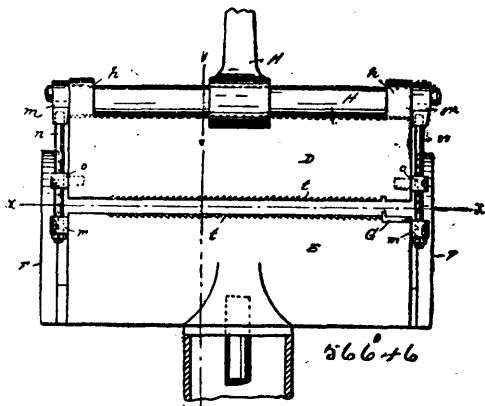
Adolph Haenichen, Paterson, New Jersey, U.S.A., 14th July, 1897; 6 years. (Filed 17th June, 1897.)

Claim.—1st. A sash holder comprising an eccentric block of fibrous material and a metallic radially arranged strengthening rib embedded therein and terminating in a sleeve adapted to surround the fulcrum of said eccentric block, substantially as described. 2nd. A sash holder comprising an eccentric block of fibrous material, a metallic strengthening rib radially arranged within said block and embedded therein and provided at its inner end with a sleeve adapted to surround the fulcrum for said eccentric block, and at its other end with a segmental shaped flange, approximately parallel with the outer edge of said block, substantially as described. 3rd. A sash holder comprising an eccentric block of fibrous material and provided with a downwardly extending projection, a metallic strengthening rib radially arranged within said block and provided on its sides with a series of lugs or projections embedded in said block, a sleeve integral with said rib and adapted to surround the

fulcrum for said block, a segmental shaped flange at the other end of said rib and embedded in said block and approximately parallel with its outer edge, substantially as described. 4th. The combination with a window frame and the sash arranged therein, of a curved block of fibrous material pivotally and eccentrically arranged on the window frame and bearing against the sash, and a metallic strengthening rib radially arranged in said block and embedded therein and provided at its outer portion with a segmental shaped flange also embedded in said block and adapted to strengthen that portion thereof which bears against the sash, substantially as described. 5th. The combination with a window frame and the sash arranged therein, of a curved block of fibrous material pivotally and eccentrically arranged on the frame and provided with a downwardly extending projection, a metallic strengthening rib embedded in said block and provided at its inner end with a sleeve penetrating said block, and at its outer end with a segmental shaped flange, and an axle, such as a screw, penetrating said sleeve and serving as a fulcrum for said block, all said parts substantially as and for the purposes described. 6th. The combination with a window frame and the sash arranged therein, of a curved block of fibrous material pivotally and eccentrically arranged on the frame and bearing against the sash, and means for normally holding said block in engagement with the sash, substantially as described. 7th. The combination with a window frame and the sash arranged therein, of a curved block of fibrous material pivotally and eccentrically arranged on a frame and provided with a downwardly extending projection, an axle, such as a screw, penetrating said block and secured to the frame and serving as a fulcrum for said block, and means for normally holding said block in engagement with the sash, substantially as described. 8th. The combination with a window frame and the sash arranged therein, of a curved block of fibrous material pivotally and eccentrically arranged on the frame and provided with a downwardly extending projection, a metallic strengthening rib radially arranged in said block and provided on its sides with a series of lugs or projections embedded in said block, a segmental shaped flange on the outer end of said rib and approximately parallel with the outer edge of said block, a sleeve carried by the inner end of said rib and penetrating the block, and an axle, such as a screw, penetrating said sleeve and secured to the frame and serving as a fulcrum for the block, all said parts substantially as and for the purposes described. 9th. The combination with a window frame and the sash, as arranged therein, of a curved block pivotally and eccentrically arranged on the frame, an axle, such as a screw, penetrating said block and secured to the window frame and serving as a fulcrum for said eccentric block, and means for normally holding said block in engagement with the sash, substantially as described. 10th. The combination with a window frame and the sash arranged therein, of a curved block pivotally and eccentrically arranged on said frame and provided with a downwardly extending projection, an axle, such as a screw, penetrating said block and secured to the window frame and serving as a fulcrum for said block, and means for normally holding said block in engagement with the sash, substantially as described.

No. 56,646. Wire Coil Machine.

(Machine de touret de fil de fer.)



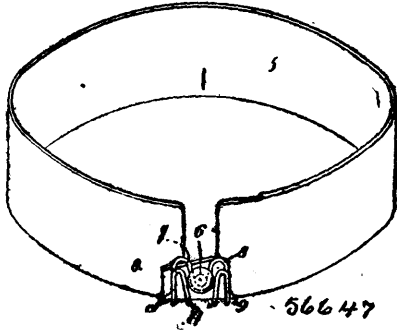
Henry Moyer Jackson, Philadelphia, and George Milton Jackson, Reading, both in Pennsylvania, U.S.A., 14th July, 1897; 6 years. (Filed 17th June, 1897.)

Claim.—1st. A spiral coil having a portion of each convolution thereof set in a true plane at right angles to the axis of the coil, substantially as set forth. 2nd. The combination with a piece of leather or other fabric, of a spiral coil engaging perforations near the edge thereof and having each convolution bent so as to set the projecting portion in a true plane substantially at right angles to the axis of the coil. 3rd. A wire coil machine having clamping jaws provided with serrations adapted to engage the convolutions of the coil and simultaneously flatten the same and set them into parallel planes, substantially as set forth. 4th. A wire coil machine having top and

bottom jaws adapted to engage the coil and having serrations formed on a portion of their meeting faces, rolls mounted in swinging ears, backed by strengthening ribs and adapted to feed said coil through a belt or other article, substantially as set forth. 5th. A wire coil machine having top and bottom jaws adapted to engage and flatten the coil, adjustable rolls mounted in swinging ears pivotally connected to the lower jaw, said rolls being adjustable by means of a screw, substantially as set forth. 6th. A wire coil machine having top and bottom jaws adapted to engage and flatten the coil, adjustable rolls tapered at the feed ends and mounted in swinging ears pivotally secured to the lower jaw, one of the said rolls provided with a circumferentially projecting ring near its feed end and the rear and lower rolls being formed with registering grooves near the outlet end thereof.

No. 56,647. Collar Button.

(Attache de bouton de collet.)

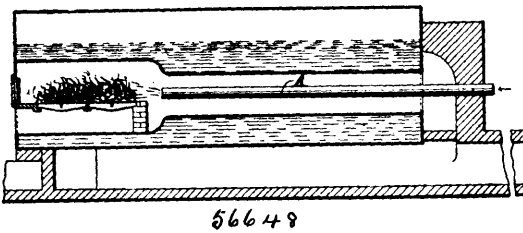


Charles Everette Smith, New York, State of New York, U.S.A., 14th July, 1897; 6 years. (Filed 17th June, 1897.)

Claim.—1st. The herein described attachment for collar buttons, said attachment consisting of a central loop or yoke which is adapted to engage with the button and which is provided with downwardly directed and outwardly projected prongs, substantially as shown and described. 2nd. The herein described attachment for collar buttons, said attachment being composed of wire bent centrally to form a loop or yoke and then downwardly to form side arms which are provided with upwardly directed extensions, said upwardly directed extensions being provided with downwardly directed and outwardly projected prongs, substantially as shown and described.

No. 56,648. Furnace Hot Air Supplying Apparatus.

(Appareil alimentateur d'air chaud pour fournaies.)



J. Martin, Melbourne, Victoria, Australia, 14th July, 1897; 6 years. (Filed 17th June, 1897.)

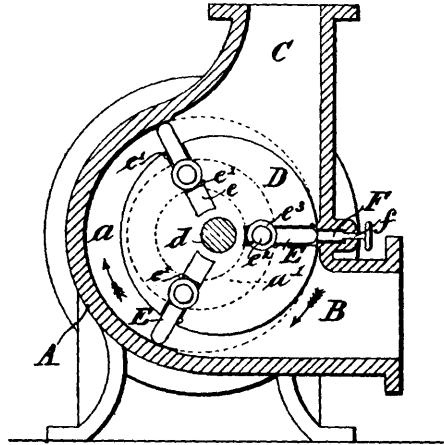
Claim.—1st. The herein described means for automatically supplying hot air to furnaces, principally locomotive, stationary, and marine boiler furnaces consisting essentially of a blow-pipe or pipes inserted in the flue or flues of the furnace, said blow-pipe or pipes being in open communication with atmospheric air at one end and with the furnace or combustion chamber at the other end, substantially as herein described. 2nd. In means for automatically supplying hot air to furnaces, principally locomotive, stationary, and marine boiler furnaces a blow-pipe or pipes inserted in the flue or flues leading from the furnace and having bulbs or enlargements at intervals and being in open communication with atmospheric air at one end and with the furnace or combustion chamber at the other end, substantially as herein described.

No. 56,649. Rotary Engine. (Machine rotative.)

David Morgan, Launceston, Tasmania, 14th July, 1897; 6 years. (Filed 17th June, 1897.)

Claim.—1st. The herein described rotary engine consisting essentially of a cylinder provided with inlet and outlet ports and having an annular race or groove in each of its end plates or covers, a rotating piston drum mounted eccentrically therein and fitted with radially sliding pistons having projecting guide wheels working within said races or grooves, substantially as and for the purposes

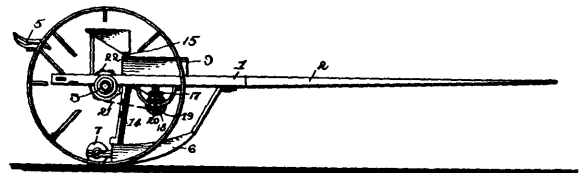
herein described. 2nd. In a rotary engine, a radial piston (such as E) having two guide wheels at each end arranged to work in a double



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annular race or groove (such as a^1 , a^2) in one of the end plates or covers of the cylinder, so that the periphery of one of said wheels will bear against the outer edge of one part of the groove, whilst the periphery of the other wheel will bear against the inner edge of the other part of said groove, substantially as and for the purposes herein described. 3rd. In a rotary engine an adjustable packing piece (such as F) inserted in the cylinder or casing between the inlet and outlet ports thereof, the space behind said packing piece being in open communication with one or other of said ports, substantially as and for the purposes herein described. 4th. In a rotary engine a radial piston connected to and operated by a ring working upon balls in a groove in the cylinder cover, substantially as and for the purposes herein described.

No. 56,650. Potato Planter. (Semoir à patates.)



56650

William H. Goddard, Putney, South Dakota, U.S.A., 14th July, 1897; 6 years. (Filed 18th June, 1897.)

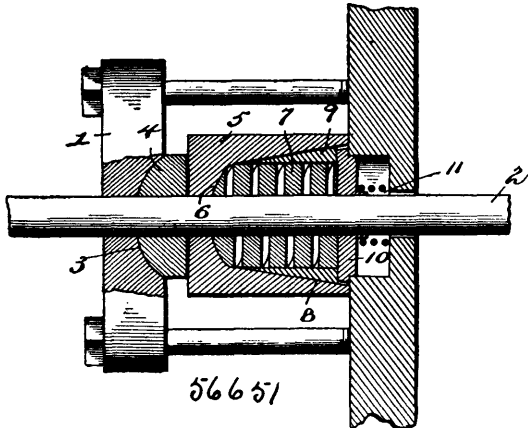
Claim.—1st. In a potato planter, the combination with a bottom having an opening, of a rotary shaft, a knife carried by said shaft and having separated blades, said knife operating on one side of the bottom, and a guard secured to the shaft on the other side of the bottom, and which is located between the separated portions of the knife. 2nd. In a potato planter, the combination with a bottom having an opening, of a rotary shaft, a knife carried by said shaft and operating over the bottom, which knife consists of sector-shaped members, and a guard secured to the shaft and operating below the bottom, which guard also comprises sector-shaped separated portions and which are located intermediate the sector-shaped portions of the knife. 3rd. In a potato planter, the combination with a box having a bottom provided with an opening, and an upper plate extending across the box and also provided with an opening in register with the first named opening, of a feed tube located above the opening in the plate and down which the potatoes pass, a rotary shaft, a knife secured to said shaft and comprising oppositely extending quadrant-shaped portions which operate between the lower end of the shaft, and also comprising oppositely extending quadrant shaped portions which operate between the plate and the bottom of the box and extend at right angles to the portions of the cutting knife, so that they lie between the portions of the said knife.

No. 56,651. Metallic Packing. (Garniture métallique.)

Eugene A. Bryant, Minneapolis, Minnesota, U.S.A., 14th July, 1897; 6 years. (Filed 18th June, 1897.)

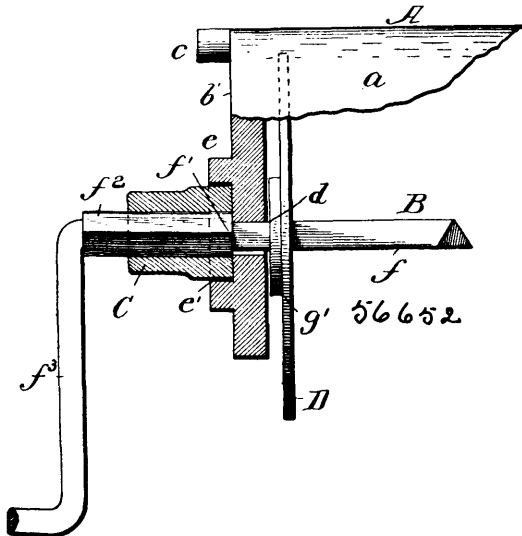
Claim.—1st. A rod-packing having a shell or casing, a coiled compressible packing-ring arranged in the shell or casing, a conical contraction packing-ring fitted in a conical seat in the inner end of

the shell or casing and surrounding the contiguous extremity of the coiled packing-ring, and a follower-plate arranged in contact with



said packing-rings and exposed to fluid pressure, substantially as specified. 2nd. A rod-packing having a shell or casing provided at one end with a conical or spherical seat, a coiled compressible packing-ring constructed at one end to fit said seat, a conical contraction packing-ring fitted in a corresponding seat in the other end of the shell or casing and surrounding the contiguous extremity of the coiled packing-ring, and a follower-plate arranged in contact with the contiguous ends of the said packing-rings and exposed to fluid pressure, substantially as specified. 3rd. A rod-packing having a shell or casing provided at one end with a conical or spherical seat, a coiled compressible packing-ring arranged within the shell or casing and constructed at one end to fit said seat, a split contraction packing-ring of tapered or conical construction fitted in a corresponding seat at the opposite end of the shell or casing and surrounding the contiguous end of the coiled packing-ring, a follower-plate fitted in the shell or casing in contact with the contiguous extremities of said packing-rings, and a retaining spring arranged in contact with the surface of the follower-plate to permanently maintain the parts in operative relation, substantially as specified.

No. 56,652. Clothes Line Reel. (Devidoir de cordes à linge.)



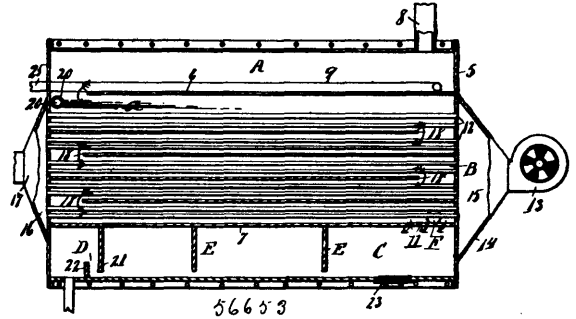
Henry O. Amundson, Clear Lake, South Dakota, U.S.A., 14th July, 1897; 6 years. (Filed 18th June, 1897.)

Claim.—1st. In a clothes line reel, a main frame provided with means for securing it in position for use, and formed with side or check-pieces having corresponding circular bearings and provided at one end with a flange around said bearings and formed with a polygonal cavity larger in area than the said bearings, in combination with a crank shaft formed with an outer polygonal section and adapted to turn in said bearings, and a sliding sleeve placed on said outer polygonal section of the shaft and adapted to enter the said flange, substantially as and for the purposes described. 2nd. In a clothes line reel, the crank shaft formed of a polygonal section *f* throughout the main portion of its length, and with a larger polygonal section *f'*, in combination with a sliding polygonal sleeve *C*

placed to slide on said section *f'* of the shaft and the check-pieces of the frame formed with corresponding bearings and provided with flanges having polygonal cavities formed therein of larger area than the said bearings, substantially as and for the purposes described. 3rd. The main frame or housing *A*, comprising the cover *a* and the side pieces *b, b'* formed with lugs *c, c'*, corresponding circular bearings *d, d'*, and outside flanges *e, e'* having polygonal cavities *e', e'* surrounding said bearings and of larger area, and the crank shaft *B* formed of a polygonal section *f*, a larger polygonal section *f'*, and shoulder *f'* combined with the plates *D, D* on the section *f* of the crank shaft and the sliding polygonal sleeve *C* placed on the section *f'* of the shaft, substantially as and for the purposes described.

No. 56,653. Feed water Heater and Condenser.

(Réchauffeur d'eau d'alimentation et condenseur.)



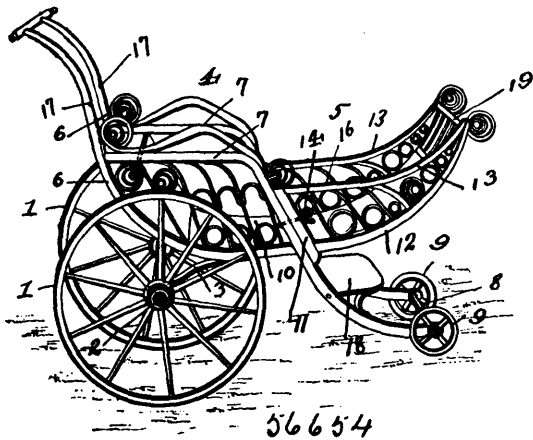
James M. Keller, Denver, Colorado, U.S.A., 15th July, 1897; 6 years. (Filed 18th June, 1897.)

Claim.—1st. In an apparatus of the character described, the combination of the casing with horizontal plates dividing the space enclosed by the casing into three compartments, namely, the steam-chamber *A*, the condensing-chamber *B*, and the water-chamber *C*, the chamber *A* being uppermost and provided with an inlet for the exhaust steam which enters chamber *A* before passing to the condensing chamber, the superheated pipe-coil located in the chamber *A*, the air-pipes located in the chamber *B*, means for forcing the air through said pipes, the apparatus being provided with a passage-way for the exhaust steam from chamber *A* to chamber *B*, and an outlet for the water of condensation to allow it to pass from chamber *B* to chamber *C*, and means for transferring the water from chamber *C* and forcing it through the superheated pipe-coil in the chamber *A* prior to its passage to the boiler. 2nd. In an apparatus of the character described, the combination of the casing, the horizontal, or approximately horizontal, plates dividing the space enclosed by the casing into three horizontal compartments *A, B* and *C*, the apparatus being provided with an inlet for the exhaust steam to chamber *A*, an outlet for the exhaust steam from chamber *A* to chamber *B*, and an outlet for the water of condensation from chamber *B* to chamber *C*, the superheated pipe-coil located in chamber *A*, the open ended condensing pipes located in chamber *B*, means for forcing cold air through said pipes, the feed-water pipe also located in the chamber *B*, and means for transferring the water from chamber *C* and forcing it through the superheated coil in chamber *A* before it passes to the boiler. 3rd. In an apparatus of the character described, the combination of the casing, the horizontal, or approximately horizontal, partition plates dividing the space enclosed by the casing into three compartments *A, B* and *C*, the apparatus being provided with a passage-way for the exhaust steam from chamber *A* to the chamber *B*, and a passage-way for the water of condensation from chamber *B* to chamber *C*, the superheated pipe-coil located in chamber *A*, the open-ended cold air pipes located in chamber *B*, means for forcing air through said pipes, the oil-trap comprising a depending plate located near the extremity of the chamber *C* but not reaching to the bottom of said chamber, and a short upwardly-projecting plate attached to the bottom of said chamber and extending a short distance above the lower extremity of the depending plate, and means for transferring the water from chamber *C*, to the superheated pipe in chamber *A* and forcing it therethrough. 4th. In an apparatus of the character described, the combination of the casing, the horizontal, or approximately horizontal, plates dividing the space enclosed by the casing into three compartments *A, B* and *C*, the chamber *A* being uppermost and adapted to receive the exhaust steam from the engine, the apparatus being provided with a passage-way for the exhaust steam from chamber *A* to chamber *B*, and a passage-way for the water from chamber *B* to chamber *C*, the superheated coil located in chamber *A*, the open-ended cold air pipes located in chamber *B*, means for forcing air through said pipes, the oil-trap comprising a depending plate located near the extremity of the chamber *C* but not reaching to the bottom of said chamber, and a short upwardly-projecting plate attached to the bottom of said chamber and extending a short distance above the lower extremity of the depending plate, and means for transferring the water from chamber *C*, to the superheated pipe in chamber *A* and forcing it therethrough. 5th. In an apparatus of the character described, the combination of the casing having a compartment *A*, a steam-pipe entering said compartment, a condensing compartment *B* in communication with the compartment *A*, a compartment *C* located below and being in communication with the compartment *B*, pipes

passing through the compartment B, means for forcing air through said pipes, the pipe-coil located in the chamber A, and means for pumping liquid from the chamber C through said pipe-coil which is superheated by direct contact with the steam which first enters the compartment A and passes thence to the condensing compartment B.

No. 56,654. Baby Carriage and Wheel Chair.

(Voiture d'enfant et siège à roues.)

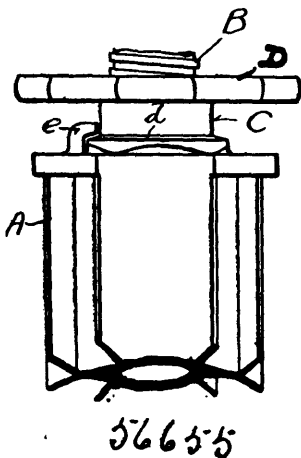


Jesse Armour Crandall, Leonard Joseph Betts and Frank Eddy Caldwell, all of Brooklyn, New York, U.S.A., 15th July, 1897; 6 years. (Filed 19th June, 1897.)

Claim.—In a combined baby carriage and wheel chair, the combination of a pair of main wheels, a baby carriage body supported thereon and provided with handles, said body being divided into two transverse sections about midway in its length, the rear section being provided at its forward end with a depending support and step-piece, and the front section being secured to the front edges of the rear section and projecting out over the step-piece, whereby said front section may be removed to convert the baby carriage into a wheel chair, substantially as and for the purposes set forth.

No. 56,655. Chair-Base Casting.

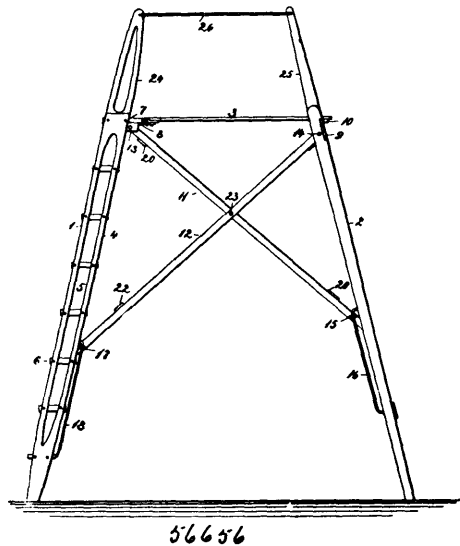
(Base de coussinet en fonte.)



John Gilson and Harry Wilbur Bolen, both of Port Washington, Wisconsin, U.S.A., 15th July, 1897; 6 years. (Filed 19th June, 1897.)

Claim.—1st. A chair-base casting presenting a waved annular surface, a longitudinally-grooved screw-spindle splined in the casting, and a nut on the spindle presenting a waved annular surface in opposition to that of said casting. 2nd. A chair-base casting presenting a waved annular surface, a longitudinally-grooved screw-spindle splined in the casting, a nut on the spindle presenting a waved annular surface in opposition to that of said casting, and suitable means for limiting longitudinal play of the nut. 3rd. A chair-base casting presenting a waved annular surface, a longitudinally-grooved screw-spindle splined in the casting, a nut on the spindle presenting a waved annular surface in opposition to that of said casting, a flange extending from the nut, and a guard on said casting arranged to overlap the nut-flange.

No. 56,656. Step-Ladder. (Echelle à marche.)



Stanley A. Cohen, New York, State of New York, U.S.A., 15th July, 1897; 6 years. (Filed 19th June, 1897.)

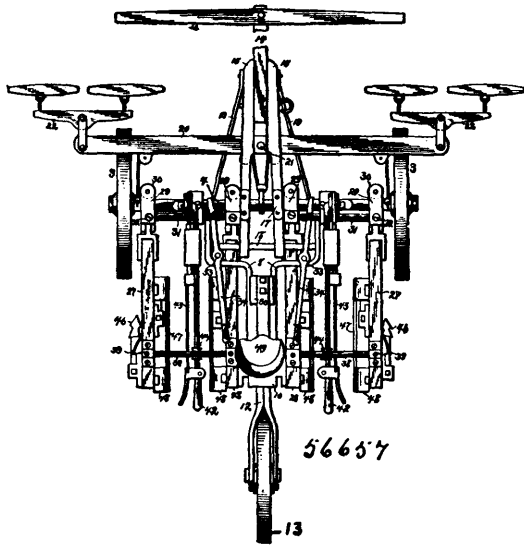
Claim.—1st. In a step-ladder, the combination of the parts 1 and 2, disconnected at their upper ends so as to be bodily separable thereat by a movement of said ends outwardly in opposite directions for the creation of a space therebetween, and a pendent platform attached at one end to the upper end of one of said parts and arranged to automatically bridge said space when said upper ends are thus bodily spread apart, as and for the purpose shown and described. 2nd. In a step-ladder, the combination of the parts 1 and 2, connected together in such a manner that said parts may be bodily spread apart at their tops as well as at their bottoms in the opening-out operation of the ladder by a movement of said parts outwardly in opposite directions, and a platform hinged or pivoted to the upper end of one of said parts and so arranged as to be capable of being lifted to a working position by the other of said parts when the two parts are separated, substantially as set forth. 3rd. In a step-ladder, the combination of the bodily-separable parts 1 and 2, pivoted connecting frames which permit said parts 1 and 2 to be moved outwardly in opposite directions for their entire lengths, and so as to create a comparatively wide space between the upper ends of the parts 1 and 2, and a platform hinged or pivoted to the part 1 and adapted to be automatically raised to a working position by the part 2 by and during the movement of separation of said two parts, substantially as set forth. 4th. In a step-ladder, the combination with the parts 1 and 2 arranged to bodily spread apart at their tops as well as at their bottoms in the opening-out operation of the ladder, of a platform hinged or pivoted to one of said parts and arranged to hang pendent on the outside of the other of said parts and to be automatically raised thereby by and during the movement necessary to separate the parts 1 and 2, substantially as set forth. 5th. In a step-ladder, the combination of the bodily-separable parts 1 and 2, and the connecting frames pivoted at their upper ends to the parts 1 and 2 and slidably connected at their lower ends to said parts, substantially as set forth. 6th. In a step-ladder, the combination of the separable parts 1 and 2, the platform pivotally attached to one of said parts and liftable by the other of said parts, and the connecting bars or frames pivoted at their upper ends to the parts 1 and 2 and loosely connected at their lower ends to said parts, substantially as set forth.

No. 56,657. Cultivator. (Cultivateur.)

William A. Whitesel and Samuel Whitesel, both of Summer, Nebraska, U.S.A., 15th July, 1897; 6 years. (Filed 19th June, 1897.)

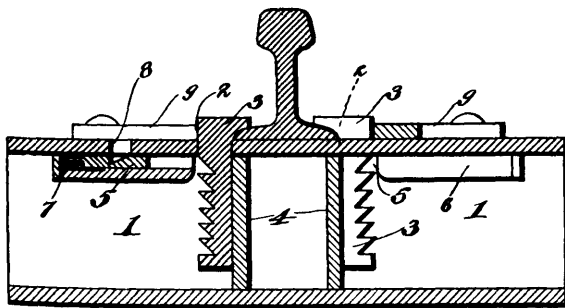
Claim.—1st. In a two-row cultivator, the arched axle and the depending U-shaped bar secured thereto, combined with a Y-shaped frame bolted to the upper portion of said bar and extending rearwardly therefrom, a yoke pivoted to the rear end of the said frame, supporting wheels on the axle and pivoted yoke, and braces extending from the lower portion of said bar to the frame, substantially as described. 2nd. In a two-row cultivator, the arched axle, the depending U-shaped bars secured thereto, the Y-shaped frame secured to the said depending bar, combined with an arched bar 13 secured to the said frame, bars 15 rigidly secured to the top horizontal portion of the axle and to the arched bar 13, and a tongue pivoted at its rear end between the bars 15, substantially as described. 3rd. In a two-row cultivator, the combination of the

axle, bars 15 rigidly secured to the supporting frame, the tongue pivoted at its rear end between said bars, a neck yoke at its outer



end, a draft evener pivoted midway of its length to the bars 15, double trees at each end of the draft evener, four pulleys on the draft evener arranged as described, a pulley on the supporting frame, and a draft chain or cable passing around the pulleys and secured at its ends to the ends of the axle, substantially as described. 4th. In a two-row cultivator, a double arched axle and a frame secured thereto and extending rearwardly therefrom, combined with clips loosely supported on the lower horizontal portions of said axle, shovel beams hinged to said clips, arched bars connecting the clip of each outer beam with that of the adjacent inner beam, a post extending upwardly from the said frame, a lever fulcrumed on the post and connected at its forward end to the arched bar, substantially as and for the purpose specified. 5th. In a two-row cultivator, two pairs of shovel beams hinged at their forward ends to the axle, combined with arched bars connecting the rear ends of the beams forming each pair, plates secured to the axle and having teeth formed therein, a lever pivoted to each of said plates and provided with a latch to engage the teeth, and a grooved roller loosely mounted on each lever and supported on a track formed in said arched bars, substantially as and for the purpose specified.

No. 56,658. Rail Fastener. (Attache de rails.)

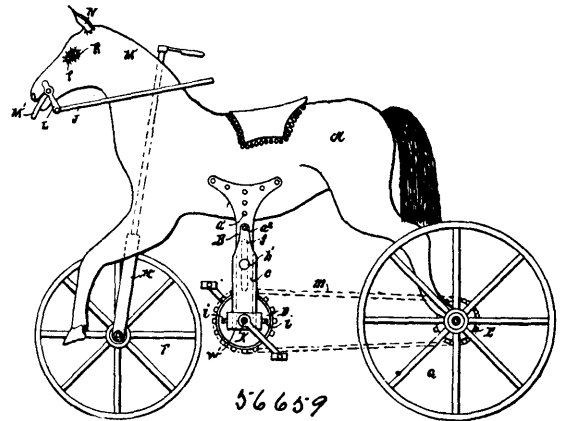


Benjamin Ferris, Deckertown, New Jersey, U.S.A., 15th July, 1897; 6 years. (Filed 19th June, 1897.)

Claim.—1st. A railroad tie, comprising a box having openings therein to receive the spikes, said spikes being provided with a series of teeth, and spring latches adapted to engage said teeth, substantially as described. 2nd. A railroad tie, comprising a box having openings arranged therein, spikes engaging the flanges of the rail, and being provided with a series of teeth, and spring latches adapted to engage the teeth of said spikes and prevent the removal thereof, substantially as described. 3rd. A railroad tie, comprising a box having transverse walls, openings and pockets arranged therein, toothed spikes adapted to said openings, spring latches to engage the teeth of said spikes and prevent the removal thereof, said latches being provided with depressions to receive a tool or other implement to withdraw the latch from engagement with the teeth, substantially as described. 4th. A railroad tie,

comprising a box having transverse walls, openings and pockets arranged therein, toothed spikes adapted to said openings, and latches arranged in said pockets, one end being bevelled to engage the teeth of the spikes, and the other end reduced to receive a spring, said latches being provided with depressions to receive a tool or other implement to withdraw the latch from engagement with the teeth, substantially as described.

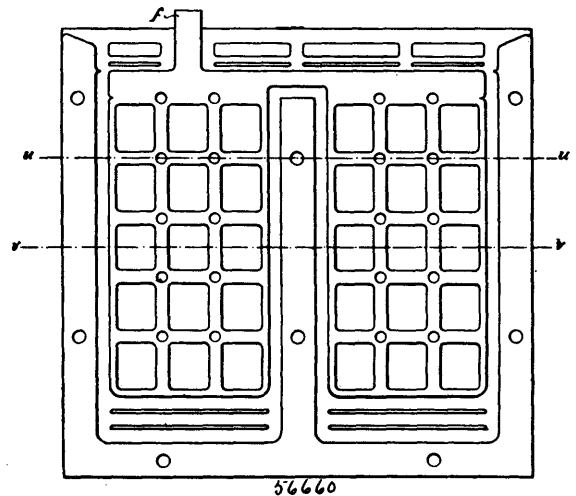
No. 56,659. Children's Vehicle. (Voiture d'enfants.)



John Fenton, Indianapolis, Indiana, U.S.A., 15th July, 1897; 6 years. (Filed 19th June, 1897.)

Claim.—In a child's vehicle, the combination with the body suitably mounted, of the halved head having the recesses therein connecting the mouth-aperture and adapted to conceal actuating mechanism, the tongue M¹ pivoted in the mouth-aperture, the ears N mounted on shafts journaled in said head and having at the inner end thereof the lever b, the shafts S¹ having at their inner ends the levers g provided with the slots g¹ and mounted in said head, the eccentric pins S at the outer ends of the said shaft S¹, the eyes R movably mounted on said eccentric-pins, the bridle-bit lever L mounted on a shaft having at its inner end a lug pressing downward against the rear end of said tongue, and the upwardly extending lever T connected pivotally by the link O connected at its opposite and pivotally to the lever b, the arm and pin c secured to said link and working in said slotted lever, the spring pressing rearward against said pin c with suitable rein connecting said lever L substantially.

No. 56,660. Electrode for Storage or Secondary Batteries. (Electrode pour piles secondaires.)



Paul Ferdinand Ribbe, Lessingstrasse, Prussia, Germany, 15th July, 1897; 6 years. (Filed 15th June, 1896.)

Claim.—1st. In an electrode for secondary batteries the combination with two celluloid plates, provided with a series of apertures for receiving the active mass of a lead plate located between said celluloid plates, substantially as herein shown and described. 2nd. In an electrode for secondary batteries, the combination with a wooden frame, of two celluloid plates, connected with each other by dissolved celluloid, said plates having openings with upturned edges, active mass in said openings and a lead plate between the celluloid plates substantially as herein shown and described. 3rd. In an

electrode for secondary batteries, the combination with a lead plate having apertures, of a celluloid plate on each side of said lead plate, which celluloid plates have projections extending into the apertures in said lead plate and thereby forming contact, at which contacts they are united and active mass held on said celluloid plates substantially as herein shown and described. 4th. In a storage battery the combination with a series of electrodes formed each of a lead plate, a celluloid plate on each side of the lead plate and active mass on the celluloid plates and which electrodes have apertures alternately at the top and bottom, of the end plates forming compartments with the outermost plates of the electrodes, tubes communicating with said compartments and bolts for holding the electrodes and end plates together, substantially as herein shown and described.

No. 56,661. Method of treating Ores.

(*Méthode de traitement des minerais.*)

Charles Anthony Burghardt, Manchester, and Gilbert Rigg, Eccles, both in Lancaster, England, 15th July, 1897; 6 years. (Filed 30th May, 1896.)

Claim.—1st. The improved process for the recovery of metallic zinc from ores of zinc, by treating the roasted and ground ores with one of the solutions hereinbefore set forth, freeing the resultant liquor from iron by means of hydrated oxide of tin or other suitable agent, and effecting the electrolytic deposition of the metallic zinc in the manner and substantially as hereinbefore set forth. 2nd. The improved process of recovering metallic zinc and metallic copper from zinc ores containing copper, by treating the roasted and ground ores with one of the described solutions, freeing the resultant liquor from iron by means of hydrated oxide of tin or other suitable agent recovering the copper from the solution by means of immersed zinc or zinc and tin plates and thereafter obtaining the metallic zinc by electrolytic deposition, substantially as described. 3rd. The improved process for obtaining metallic copper from copper ores by treating the roasted and ground ores with one of the indicated solutions, having added thereto an amount of zinc equal to from 4,000 to 5,000 grains of zinc per gallon, and recovering the metallic copper from the solution by immersed zinc or zinc and tin plates, the zinc being from time to time recovered from the solution by electrolysis, substantially as hereinbefore set forth. 4th. In carrying out the indicated processes, preventing the loss of ammonia from the solutions by covering them with a layer of paraffin or other mineral oil, as set forth.

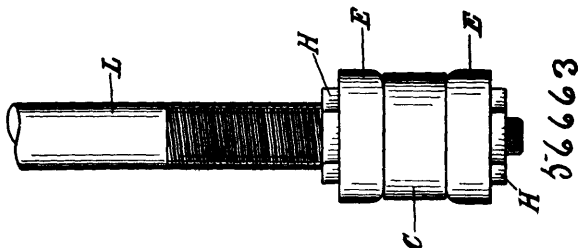
No. 56,662. Storage Battery.

(*Piles secondaires.*)

Albrecht Heil, Frankisch Crumbach, Germany, 15th July, 1897; 6 years. (Filed 7th January, 1897.)

Claim.—A secondary battery cell, in which a reduced and chlorinated peroxide of manganese and carbon electrode is placed in a chlorine containing electrolyte opposite to a lead electrode that is covered with powdered lead, the arrangement being such that the two electrodes alternately give out and take up electrical energy by their chlorination and reduction, according as they are discharged or charged, substantially as described.

No. 56,663. Seatless Cock. (Robinet sans siège.)



Robert Skelly, London, Ontario, Canada, 15th July, 1897; 6 years. (Filed 25th February, 1897.)

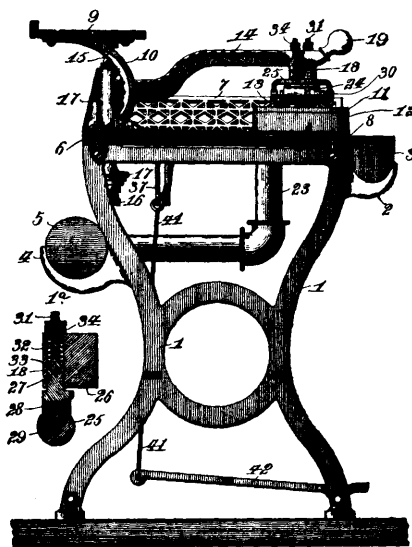
Claim.—1st. A plunger C, and a cup-shaped washer E, secured thereto in combination with a barrel A, in which the perforations B, are formed, substantially as and for the purpose set forth. 2nd. A plunger C, and a cup-shaped washer E, secured to both ends thereof in combination with the barrel A, in which the perforations B and S, are formed, substantially as and for the purpose set forth. 3rd. The plunger C, cup-shaped washers E, E, and means for operating the same, in combination with barrel A, in which the perforations B and S, are formed, the casing N, tubes R and O, and spout P, substantially as and for the purpose set forth.

No. 56,664. Cigar and Cigarette Wrapper Cutting Machine. (Machine à découper les enveloppes des cigares et cigarettes.)

Napoleon Du Brul, Cincinnati, Ohio, U.S.A., 15th July, 1897; 6 years. (Filed 26th April, 1897.)

Claim.—1st. In a cigar or cigarette wrapper cutter employing air exhaust for holding the leaf, a die in combination with a surround-

ing platen, which is perforated, and means for limiting the air exhaust to the platen outside of the die, substantially as herein ex-

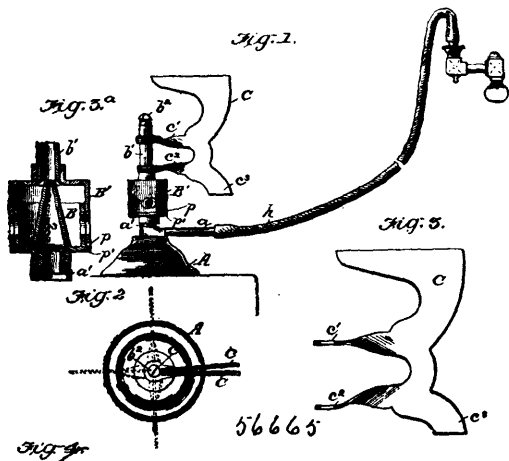


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plained. 2nd. A wrapper cutter having a perforated platen outside thereof whereby material to be cut is held by the exhaustion of air outside of the cutter, as explained. 3rd. In a wrapper cutter, the combination of a cutting die, a platen surrounding said die, and perforated to permit exhaustion of air from its surface, for holding material to be cut, and means for admitting normal atmospheric pressure to the die to avoid suction on the material within the cutting edges, substantially as and for the purpose set forth. 4th. In a wrapper cutter, the combination of a hollow die having constant communication below its cutting edge with the atmosphere, a perforated platen outside of said die, and a suction chamber beneath the platen, substantially as and for the purpose set forth. 5th. In a wrapper cutter, the combination of a cutting die and a pair of overlapping rollers mounted above the respective cutting edges of the die and having independent vertical and axial adjustment, substantially as and for the purpose set forth. 6th. In a wrapper cutter, the combination of a suitable carrier and a cutting die with means for producing a relative movement between them, rollers bearing upon the respective edges of the die, and independent hangers in which said rollers are journaled and which are provided with independent stems working in the carrier, substantially as and for the purpose set forth. 7th. In a wrapper cutter, the combination of a suitable carrier provided with a vertical bore, a roller, and a hanger in which the roller is journaled, and which is provided with a shouldered stem working in the bore of the carrier, said stem being provided with a spring between its shoulder and the end of the bore, and being provided with an adjusting means upon its end above the carrier, substantially as explained. 8th. In a wrapper cutter, the combination of a die having a supporting block constructed to permit the exhaust of air through it, a platen surrounding the die, constructed to permit exhaust of air outside of the die, and means for exhausting air from the outside and also from the inside of the cutting die during the cutting operation, substantially as explained. 9th. In a wrapper cutter, the combination of a cutting die, a perforated supporting block within the die, a platen surrounding the die, also having air passages therein, a suction chamber communicating both with the inside of the die and with the perforations of the platen outside of the die, and suitable means for exhausting air from said suction chamber, as explained. 10th. In a wrapper cutter, the combination of a cutting die and a supporting block within said die, comprising an outer frame and an inner portion spaced apart from the frame so as to leave a passage for the exhaust of air, as explained. 11th. A supporting block or inner platen for a wrapper cutter, the same comprising an outer frame which fits within the die so as to form a supporting rim for the edge of the leaf, and an inner portion spaced apart from the said rim so as to leave an air exhaust passage between them, but separated from said rim or frame, substantially as explained. 12th. In a wrapper cutter, the combination of a die, a rim or frame fitting neatly within said die and having ribs, 50, and the inner plate spaced apart from the outer rim or frame so as to leave a passage for exhaust of air and supported upon said ribs, substantially as explained. 13th. In a wrapper cutter, the combination of a suitable die, a supporting block comprising the rim or frame, having the transvers ribs and the plate supported upon said ribs within the rim or frame so as to leave a space surrounding said plate, rods, 51, extending downwardly from said ribs and working in a suitable support, and spring surrounding the rods resting on said support and engaging beneath the ribs to support the block, as ex-

plained. 14th. In a wrapper cutter, the combination of a suitable die and a filling block or inner platen for said die, having a passage for the exhaust of air and having at one end a non-perforated portion, 47, substantially as and for the purpose set forth. 15th. A cigar wrapper cutter having a frame fitted within it to support the edge of the wrapper to be cut, and one end of said frame being larger than the sides thereof to prevent the corresponding end of the wrapper being held by suction, and a suitable support for the interior portion of the wrapper with an exhaust opening, as explained.

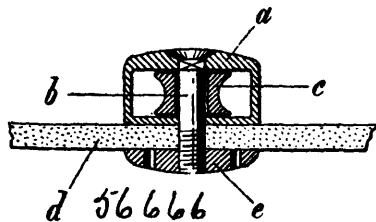
No. 56,665. Gas Burner. (Bec de gaz.)



George Henry Parsons, St. Louis, Missouri, U.S.A., 15th July, 1897; 6 years. (Filed 28th April, 1897.)

Claim.—1st. The gas burner herein described consisting of an inner wall B, with openings in its side, and concentric upwardly projecting gas nozzle b^1 , formed in one piece with said wall and having a screw-threaded lower end to connect with a gas supply pipe, in combination with an outer casing B^1 , having openings in its side adapted to register with those in the inner wall, and a burner tube b^1 , detached from the inner wall and permanently connected to the outer casing and with it adjustable on and removable from the inner wall, and stops for determining its rotary adjustment, substantially as shown and described. 2nd. A support for holding utensils, &c., above a gas burner, consisting of a set of flat leaves each made alike with two projecting arms c^1, c^2 , twisted or turned through a quarter of a circle to bring their ends into a plane at right angles to that of the body of the leaf, and perforated to embrace the burner, substantially as and for the purpose described.

No. 56,666. Eyelet. (Billet.)



Rudolph Friedrich Christof Rollfinck, Warnemünde, Germany, 15th July, 1897; 6 years. (Filed 3rd May, 1897.)

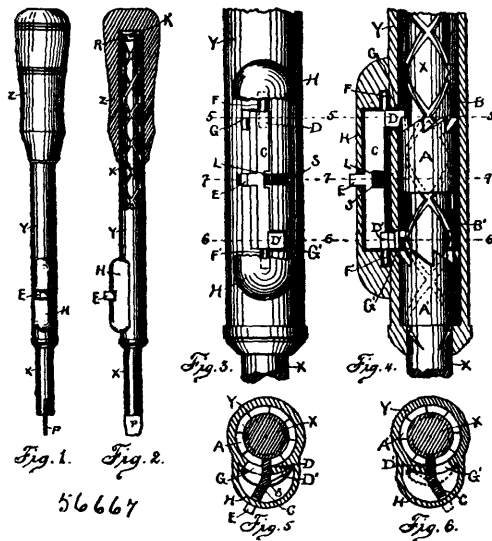
Claim.—1st. An eyelet for shoes, gloves, corsets, and other articles requiring to be laced, characterized by the fact that a roller c , which is capable of rotating about a pin b , is arranged in a metal frame or case a , whilst the lace serving to lace up the shoe, glove, corset, or other article passes over the said roller, constructed and arranged substantially as hereinbefore described. 2nd. An eyelet for shoes, gloves, corsets, and other articles requiring to be laced, constructed and arranged substantially as hereinbefore described.

No. 56,667. Screw-driver. (Tournevis.)

Martin H. Schay, Tacoma, Washington, U.S.A., 15th July, 1897; 6 years. (Filed 5th May, 1897.)

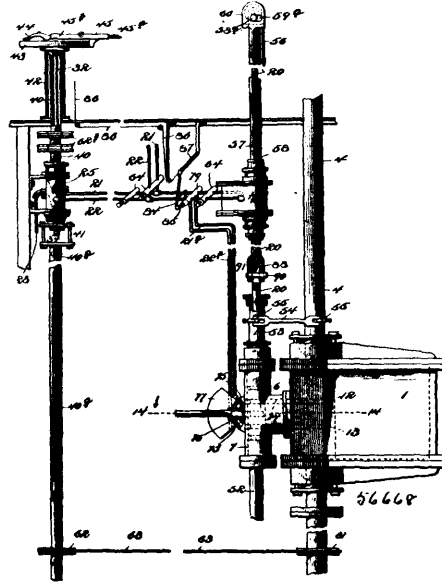
Claim.—The combination, in a spiral-shaft screw-driver, of the ratcheted cylinders A and A^1 , each provided with sliding drivers d , fitted into the winding grooves of the shaft X, said cylinders working loosely in the spaces formed by B and B^1 , the reversing-piece C,

pivoted at F, F^1 , and having the locking cams D and D^1 , and the extension E, the springs S, fitted to the bevelled notch L, the rivet



K, and the covering-piece H, all substantially as described and for the purposes set forth.

No. 56,668. Fluid Pressure Steering Gear. (Gouvernail à pression hydraulique.)



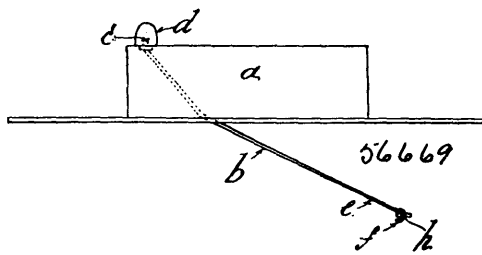
Charles Edwin Bergman, Snohomish City, Washington, U.S.A., 15th July, 1897; 6 years. (Filed 5th May, 1897.)

Claim.—1st. A valve having its casing provided with supply, cylindrical and exhaust ports, concentric main and auxiliary valve-plugs, the auxiliary valve-plug having supply, feed and exhaust ports in permanent communication with the corresponding ports of the casing, and the main valve-plug being seated within the auxiliary valve-plug and adapted to close the feed-ports thereof, and connections between the main and auxiliary valve-plugs whereby an equalization of pressure in the cylinder-ports of the casing is accompanied by an adjustment of the auxiliary valve-plug to close the cylinder-ports thereof, substantially as specified. 2nd. A valve having rotary concentric main and auxiliary plugs and a casing provided with cylinder-ports and an intermediate supply-port, said main valve-plug being tubular with its bore in communication with an exhaust-port, and the auxiliary valve-plug being provided with supply, feed and exhaust ports communicating with exterior annular channels, and the main valve-plug being provided with a face adapted to close said ports in the auxiliary valve-plug and also

having chambers for establishing communication between certain of said ports, substantially as specified. 3rd. A valve having its casing provided with supply, cylinder and exhaust ports, rotary concentric main and auxiliary valve-plugs, the auxiliary valve-plug having supply, feed and exhaust ports in permanent communication with the corresponding ports of the casing, and the main valve-plug being seated within the auxiliary valve-plug, and provided with a face to close all of said ports in the auxiliary valve-plug, and also provided with exterior channels adapted to establish communication between the supply and one feed-port, and between the other feed-port and the contiguous exhaust-port of the auxiliary valve-plug, substantially as specified. 4th. A valve having its casing provided with supply, cylinder and exhaust ports, and comprising a rotary auxiliary valve plug provided with supply, feed and exhaust ports in permanent communication with the corresponding ports of the casing, and a rotary main valve-plug adapted to be manually operated and arranged within and concentric with the auxiliary valve-plug, said main valve-plug having an interior exhaust in permanent communication with the casing exhaust-port and provided with an exterior face to close the ports of the auxiliary valve-plug, and chambers for establishing communication between the supply and feed-ports, and between the feed and exhaust ports, of the auxiliary valve plug, substantially as specified. 5th. A valve having its casing provided with supply, cylinder and exhaust ports, and comprising a rotary tubular auxiliary valve-plug, provided with supply, feed and exhaust ports in permanent communication with the corresponding ports of the casing, and a rotary tubular main valve-plug arranged within and concentric with the auxiliary valve plug and having its bore arranged to connect the exhaust ports of the auxiliary valve-plug with the exhaust port of the casing, and provided with an exterior face adapted to close the ports of the auxiliary valve-plug, and with contiguous chambers adapted to establish communication between the supply and either feed-port, and between the other feed-port and the contiguous exhaust-port of the auxiliary valve-plug, substantially as specified. 6th. The combination with a main piston adapted to be attached to a rudder shaft, of an operating-valve, means controlled by the operating-valve for applying fluid-pressure to opposite sides of said piston, said operating-valve having concentric rotary main and auxiliary valve-plugs adapted when in their normal positions to close the valve-ports, operating connections between the piston and the auxiliary valve-plug to secure co-extensive angular movement thereof, an index fixed to the stem of the auxiliary valve-plug and traversing a dial, and means for manually operating the main valve-plug, substantially as specified. 7th. The combination with a main piston adapted to be attached to a rudder-shaft, of a plurality of operating-valves, means controlled by said operating-valves for supplying fluid-pressure to opposite sides of the piston, each operating-valve having an auxiliary valve plug which is operatively connected with said piston to secure co-extensive movement thereof, and each operating-valve having a main valve-plug for co-operation with said auxiliary valve-plug and adapted when in its normal position with relation thereto to close the valve-ports, indicating devices carried respectively by the auxiliary valve-plugs, and means for locking the main and auxiliary valve-plugs of either operating-valve in their normal relative positions, the main valve-plug of each operating-valve being adapted to be manually operated, substantially as specified. 8th. The combination of a piston adapted to be attached to a rudder-shaft, of a plurality of operating-valves, means controlled by said operating-valves for applying fluid-pressure to opposite sides of the piston, each operating-valve having an auxiliary valve-plug which is operatively connected with said piston for movement co-extensive thereof, and each operating-valve also having a main valve-plug concentric with and adapted when in its normal position with relation to the auxiliary valve-plug to close the valve-ports, indicating devices including an index carried by each auxiliary valve-plug and traversing a dial, and operating-levers connected to the main valve-plugs and having swinging arms adapted to be engaged with said indexes to secure the main and auxiliary valve-plugs in their normal relative positions, substantially as specified. 9th. The combination with a main piston adapted to be attached to a rudder-shaft and a main valve for controlling the application of fluid-pressure to opposite sides of said piston and having a rotary valve-plug or member, of an operating-piston connected to the stem of said rotary valve-plug or member, an operating-valve for applying pressure to opposite sides of the operating-piston, and indicating devices operatively connected with the main piston, substantially as specified. 10th. The combination with a main piston adapted to be attached to a rudder-shaft, of a main valve for controlling the application of fluid-pressure to opposite sides of said piston and having a rotary valve-plug stem, an operating-piston mounted concentrically with the rotary valve-plug stem, clutch mechanism for connecting the operating-piston with said valve-plug stem, and an operating-valve for communicating pressure to opposite sides of the operating-piston, substantially as specified. 11th. The combination of a main piston adapted to be attached to a rudder-shaft, of a main valve for controlling the application of pressure to opposite sides of said piston and having a rotary valve-plug stem, an operating-valve mounted concentrically with the valve-plug stem, an operating-lever attached to said stem, a clutch for connecting the operating-piston to said stem to operatively connect with said lever, and an operating-valve for controlling the application of pressure to opposite sides of the operating-piston, substantially as specified. 12th. The combination with a main piston and a main valve for

controlling the application of pressure to opposite sides of said piston, of an operating-piston operatively connected with said main valve, and a plurality of operating-valves for controlling the application of pressure to opposite sides of the operating-piston, each operating-valve having an indicating device which is operatively connected with the main piston, substantially as specified. 13th. The combination with a main piston adapted to be attached to a rudder-shaft, and a main valve for controlling the application of pressure to opposite sides of said piston, of an operating-piston operatively connected with the main valve, a plurality of operating-valves connected with the cylinder of the operating-piston for communicating pressure to opposite sides of the latter, and check-valves located in the conveyers connecting said operating-valves with the operating-piston cylinder, each check-valve being adapted to be actuated by supply-pressure to open both the supply and the exhaust-conveyers, substantially as specified. 14th. The combination with an operating-piston, and an operating-valve having its casing in communication with the operating-valve cylinder by means of twin conveyers, of a check-valve having a casing in communication with both of said conveyers, and a valve-plug adapted to be adjusted by supply-pressure through either conveyer to open communication to both conveyers, substantially as specified. 15th. The combination with an operating-piston and an operating valve having its casing in communication by twin conveyers with the operating-piston cylinder, of a check-valve having a casing in communication with both conveyers, a valve-plug seated in said casing and exposed at opposite ends, respectively, to supply-pressure admitted through either conveyer, and normally held by yielding means in position to exclude back pressure through both conveyers, substantially as specified. 16th. A check-valve having its casing in communication with twin conveyers to either of which supply-pressure may be admitted, and provided with an axially-movable plug exposed at opposite ends to supply-pressure admitted through said conveyers, respectively, resilient means, as a spring, for normally maintaining the plug in position to prevent the admission of back pressure through said conveyers, and means for adjusting the tension of said spring, substantially as specified. 17th. The combination with a main piston, and a main valve for controlling the application of pressure to opposite sides of said piston, of an operating-piston operatively connected with the main valve, a controlling-valve for the supply-port of the main valve, an adjusting-piston connected to the controlling-valve, an operating-valve for controlling the application of pressure to opposite sides of the operating-piston, and a switch-valve for controlling communication between the operating-valve and the cylinder of the adjusting-piston, substantially as specified. 18th. The combination with a main piston having a casing, a main valve for controlling the application of pressure to opposite sides of the main piston, the cylinder at opposite sides of its piston being connected by an equalizing channel and the main valve being provided with a supply-port intersecting said equalizing channel, of a controlling-valve arranged at the intersection of said equalizing channel and support-port, an adjusting-piston connected to the controlling-valve and arranged in the cylinder, an operating-cylinder operatively connected with the main valve, an operating-valve connected by main fluid-pressure conveyers with the operating-piston cylinder, branch conveyers connecting said main conveyers with the adjusting-piston cylinder, and a switch-valve located at the intersection of the main and branch conveyers and adapted to be manually adjusted, substantially as specified.

No. 56,669. Hat Fastener. (*Attache de chapeau.*)



Reginald Herbert Charleton, Dovercourt, Essex, England, 15th July, 1897; 6 years. (Filed 14th June, 1897.)

Claim.—In hat fasteners, two or more cords attached at or about the crown or top of same, and at a lower part thereof, and having hooks upon the free ends of same, which engage in eyelets or loops formed upon a pin which passes through the hair of the wearer substantially as described and illustrated herein.

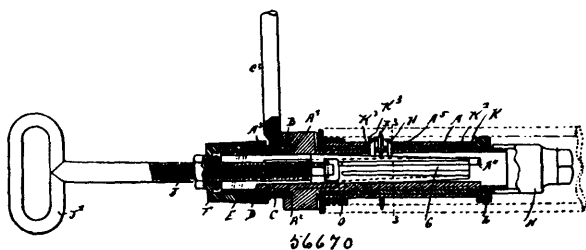
No. 56,670. Tube Cutter.

(*Appareil à couper les tubes.*)

Anton Krauzer, Lidgerwood, North Dakota, U.S.A., 15th July, 1897; 6 years. (Filed 6th May, 1897.)

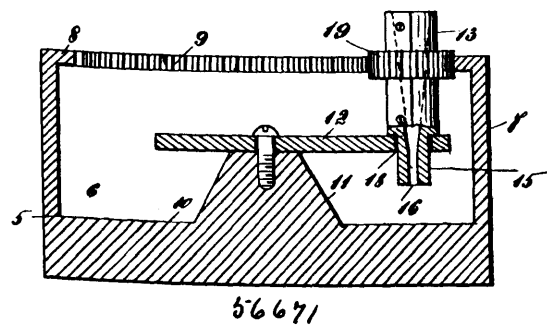
Claim.—1st. A tube cutter comprising a revoluble casing, a ratchet device for turning the same, carriers fitted to slide in the wall of said casing, and each carrying a disc cutter, a tapering mandrel engaging said carriers for shifting the same laterally, and a

feed screw rod engaging said mandrel for shifting the latter longitudinally in said casing, substantially as shown and described.



2nd. A tube cutter comprising a revoluble casing, carriers fitted to slide in the wall of said casing, and each carrying a disc cutter, a tapering mandrel engaging said carriers for shifting the same laterally, a feed screw rod engaging said mandrel for shifting the latter longitudinally in said casing, and auxiliary casing tubes adapted to be fitted on said casing, and having apertures registering with the casing apertures for the carriers, substantially as shown and described. 3rd. A tube cutter comprising a revoluble casing, carriers fitted to slide in the wall of said casing, and each carrying a disc cutter, a tapering mandrel engaging the said carriers for shifting the same laterally, a feed screw-rod engaging said mandrel for shifting the latter longitudinally in said casing, auxiliary casing tubes adapted to be fitted on said casing, and having apertures registering with the casing apertures for the carriers, and means for holding said auxiliary casing tubes in place, as set forth. 4th. A tube-cutter comprising a casing having a head formed with a ratchet-wheel, a crank arm mounted to turn on the reduced end of said head, and carrying spring pressed pins engaging said ratchet-wheel, and a spring held in a cap for said casing, and pressing said crank-arm, so as to hold the pins in contact with the ratchet-wheel, substantially as shown and described. 5th. A tube cutter comprising a casing formed with apertures in its wall, and having longitudinal guideways at its inner surfaces, a tapering mandrel fitted to slide on said guideways, and formed with longitudinally extending dovetailed grooves, a feed screw rod for moving said mandrel longitudinally in said guideways, and cutter carriers having dovetails fitting the said grooves of the mandrel, substantially as shown and described. 6th. A tube-cutter comprising a casing (revolvable) having longitudinal guideways, carriers fitted to slide in the walls of the casing, and each carrying a cutter, a tapering mandrel engaging the carriers for shifting the same, said mandrel being guided by engagement with the guideways in the casing, and a feed screw for moving the mandrel longitudinally in the casing, substantially as set forth. 7th. A tube cutter comprising a casing having an aperture, carriers fitted to slide in the aperture of the casing, and provided with cutters, a tapering mandrel in the casing and in engagement with the carriers, for shifting the same, a feed screw for moving the mandrel, an auxiliary casing tube arranged to fit on the casing, and having an aperture arranged to register with the aperture in the case, and means to secure said tube in place on the casing, substantially as set forth. 8th. A tube-cutter comprising a casing having aperture carriers fitted to slide in the aperture of the casing and provided with cutters, a tapering mandrel in the casing in engagement with the carriers, for shifting the same, a feed-screw for moving the mandrel, an auxiliary casing tube arranged to fit on the casing and having an aperture registering with the aperture in the case, means to secure said tube in place on the casing, and a cap screwing on the end of the casing to hold said tube in place, substantially as set forth.

No. 56,671. Pencil Sharpener. (Taille crayon.)

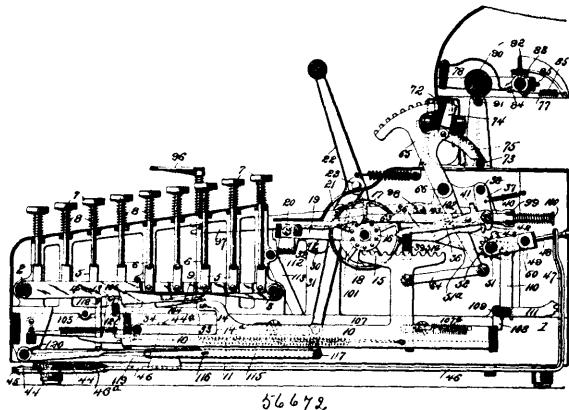


John Lee Love, Massachusetts, U.S.A., 15th July, 1897; 6 years. (Filed 6th May, 1897.)

Claim.—1st. In a device of the character herein described, a chamber which is open at the top and around which is formed or secured an inwardly directed annular flange or rim which is provided with gear teeth, the bottom of said chamber raised and provided with a pivoted arm or plate and a pencil sharpener which is

revolvably mounted in one end of said arm or plate, and which is provided with a pinion or gear wheel, substantially as shown and described. 2nd. A pencil sharpener, comprising a block or casing in which is formed a chamber which is open at the top, the top walls of said chamber being provided with an inwardly directed annular flange or rim which is provided with gear teeth, an arm or plate which is pivotally mounted on the raised portion connected with the bottom of said box or casing, and a pencil sharpener which is revolvably mounted in one end of said arm or plate, said pencil sharpener being provided with a pinion or gear teeth, and at the lower end thereof with a tubular extension which passes through the end of said arm or plate, substantially as shown and described.

No. 56,672. Calculating Machine. (Machine à calculer.)



De Kernia James Thomas Hietts, St. Louis, Missouri, U.S.A., 15th July, 1897; 6 years. (Filed 6th May, 1897.)

Claim.—1st. The combination with the adding mechanism, series of keys, and a series of rack bars, one rack bar being common to a series of keys, said rack bars acting upon the adding mechanism, the keys releasing the rack bars initially so that they occupy varying positions, depending upon the position of the operated key in its series, of a cross bar co-operating with the rack bars, and means for moving said cross bar to restore the rack bars to their normal position, which restoration of the rack bars actuates the adding mechanism, substantially as described. 2nd. The combination with the adding mechanism, of a series of independently operated rack bars co-operating therewith, keys, means connected to and operated by the keys for determining an initial movement of the rack bars, a lever for throwing the adding mechanism into engagement with the rack bars after the rack bars have completed their initial movement, and a cross bar connected to and operated by said lever for engaging the rack bars and restoring them to their normal position, thereby actuating the engaged adding wheels proportionately to the initial movement of the rack bars, substantially as described. 3rd. The combination with a key board, of rack bars which are controlled thereby, means for retaining the keys in a depressed position after said keys release the rack bars, an adding mechanism with which said rack bars engage, and means for moving the rack bars to engage and operate the adding mechanism, said means also releasing the keys and resetting the rack bars, substantially as described. 4th. The combination with a key board, of trips which are operated by said keys, rack bars which are controlled by said trips, springs for moving said rack bars forwardly, and means on the rack bars and key bars co-operating with each other to determine the movement of the rack bars, depending upon the position of the depressed key in its series, substantially as described. 5th. The combination with keys which are arranged in series, of key bars formed with stops whose location is determined by the position of the keys in their series, and rack bars provided with abutments co-operating with said stops when the keys are depressed, substantially as described. 6th. The combination with a key which is provided with a stop and a finger-like projection, of a rack bar, and a cross bar on the rack bar which is adapted to co-operate with said stop and finger, substantially as described. 7th. The combination with the adding mechanism, of a series of independently operated rack bars co-operating therewith, keys, means connected to and operated by the keys for determining an initial movement of the rack bars, means for engaging the rack bars with the adding mechanism after such initial movement has been completed and restoring the rack bars to their normal positions, which restoration of the rack bars actuates the engaged adding wheels proportionately to the initial movement of the rack bars, and devices for retaining the keys in a depressed position until the rack bars have been restored, substantially as described. 8th. The combination with a key board whose keys are arranged in series, of key bars which are nested for each series of keys, said nest being divided and pivoted on different shafts, recesses of varying depth in said key bars, the bottoms of said recesses forming retaining fingers, and rack bars provided with cross bars for co-operating with said recesses and fingers, substan-

tially as described. 9th. The combination with a series of keys, of key bars which are nested, a trip which is adapted to be operated by any of the keys in that nest, and a rack bar which is controlled by said trip, substantially as described. 10th. The combination with a series of keys whose key bars are nested and formed with recesses of varying depths, of a trip which is adapted to be operated by any one of said keys, a rack bar controlled by said trip, and a cross bar on the rack bar, which is adapted to co-operate with recesses in any one of the key bars of said nest, substantially as described. 11th. In a calculating machine, the combination with a key board, which is provided with keys arranged in series, the key bars of said series being nested, a trip for each nest of key bars, a rack bar which is controlled by said trip, and cross bars on the rack bars which co-operate with recesses in the key bars of a nest, which controls the trips, substantially as described. 12th. The combination with series of keys, of rack bars, one of which bars is common to each series of keys, means controlled by the keys whereby, upon the operation of any key in a series, the rack bar common to that series is initially moved a predetermined distance, an adding mechanism which is normally out of engagement with the rack bars, and means for throwing the said adding mechanism into engagement with the rack bars, said means also returning the rack bars to their normal position, and actuating the adding mechanism proportionately to the initial movement of the rack bars, said adding mechanism being disengaged from the rack bars after the rack bars have completed their final movement, substantially as described. 13th. The combination with a series of keys, of rack bars, one of which bars is common to each series of keys, means controlled by the keys whereby, upon the operation of any key in a series, the rack bar common to that series is initially moved a predetermined distance, an adding mechanism, which is normally out of engagement with the rack bars, and means for throwing said adding mechanism into engagement with the rack bars, said means also returning the rack bars to their normal position and actuating the adding mechanism proportionately to the initial movement of the rack bars, said rack bars being of such length that the adding mechanism is not disengaged therefrom until said rack bars have completed their final movement, whereby the adding mechanism is in positive mesh with the rack bars until said rack bars are stationary, substantially as described. 14th. The combination with rack bars, of an adding mechanism mounted in a swinging frame, and an operating lever for depressing said swinging frame so that said adding mechanism will be thrown into engagement with the rack bars, said lever moving the rack bars after such engagement has been established, and releasing the swinging frame of the adding mechanism upon the completion of the movement of the rack bars, substantially as described. 15th. The combination with rack bars, of an adding mechanism, a swinging frame in which said mechanism is mounted, an operating lever, a dog on the end of the operating lever, a lever having a cam face, and connected to the swinging frame by a link, and means for throwing said dog into an inoperative position, whereby the swinging frame will not be actuated. 16th. The combination with rack bars, of an adding mechanism, a swinging frame in which said mechanism is mounted, a lever having a cam face, and connected by a link to said swinging frame for operating said frame, and an operating lever for engaging said cam face for throwing the adding mechanism into engagement with the rack bars, said operating lever also moving the rack bars to actuate said adding mechanism when said engagement is effected, substantially as described. 17th. The combination with rack bars which are adapted to be initially moved a predetermined distance, an adding mechanism which is normally out of engagement with the rack bars, a swinging frame in which said adding mechanism is mounted, and an operating lever for depressing said swinging frame and throwing the adding mechanism into engagement with the rack bars after the rack bars have completed their initial movement, said lever also returning the rack bars to their normal position, and actuating the adding mechanism proportionately to the initial movement of the rack bars, said lever permitting the swinging frame to rise and carry the adding mechanism out of engagement with the rack bars, when said rack bars have completed their final movement, substantially as described. 18th. The combination with a key board whose keys are divided into series, the key bars of each series being nested, of a trip for each nest of key bars, a rack bar which is controlled by each trip, said rack bars co-operating with a nest of key bars, and adding mechanism consisting of independent adding wheels, mounted on a common shaft, and means for throwing all of said adding wheels into engagement with their respective rack bars, said means also causing a return movement of such rack bars as have been actuated, whereby each rack bar operates its respective adding wheel proportionately to the initial movement of the rack bar, substantially as described. 19th. The combination with a series of keys, of key bars for each series which are nested, a trip controlled by the key bars of each nest, a rack bar controlled by each trip, said rack bars having cross bars which co-operate with recesses in the key bars of their respective nests, whereby a predetermined initial movement of the rack bars is effected, adding wheels mounted on a common shaft and which are adapted to be thrown into engagement with their respective rack bars when said rack bars have completed their initial movement, an operating lever for effecting such engagement, said lever also returning the rack bars to their normal position and disengaging the adding wheels from the rack bars when the rack bars have reached their normal position, substantially as described. 20th. The combi-

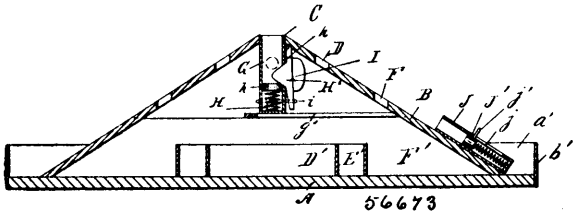
nation with an adding mechanism, of a transferring device which travels alongside of the adding mechanism, said transferring device starting at one end and travelling along the entire length of the adding mechanism to the other end, said device successively operating on or more wheels in its travel, substantially as described. 21st. The combination with an adding mechanism, of a travelling frame arranged in juxtaposition thereto, and a device carried by said frame for engaging and actuating the adding wheels, substantially as described. 22nd. The combination with an adding mechanism composed of independent adding wheels, of a travelling mechanism adapted to travel the length of said adding mechanism, and transfer numbers from one adding wheel to another, substantially as described. 23rd. The combination with an adding mechanism, composed of independently actuated adding wheels, of a trip which is adapted to be actuated by said adding wheels, and mechanism which travels along the adding mechanism for co-operating with said trip to actuate the next adding wheel in advance, substantially as described. 24th. The combination with an adding mechanism composed of independently operated wheels, of trips which are actuated by said wheels, a shaft arranged along the entire length of the adding mechanism and to one side thereof, a frame slidingly mounted on said shaft, and travelling longitudinally thereof, and means carried by said frame for co-operating with the trips to actuate the adding wheels, substantially as described. 25th. The combination with an adding mechanism, composed of independently actuated wheels, a pin or projection on each of said wheels, a trip in the path of said pin, a travelling pinion, means for arresting said pinion in its travel when a trip is thrown, and a push bar which is actuated by said pinion, when arrested, to actuate the next adding wheel in advance, substantially as described. 26th. The combination with an adding mechanism, composed of independently actuated wheels, a pin or projection on each of said wheels, a hook bar in the path of said wheels, a travelling pinion, a projection on the hook bar for arresting said pinion in its travel when said hook bar has been thrown by the pin on the adding wheel, and a push bar pivoted to the hook bar, which push bar is actuated by the arrested pinion to throw the next adding wheel in advance, substantially as described. 27th. The combination with an adding mechanism, composed of independently actuated wheels, a pin or projection on each of said wheels, a hook bar for each wheel in the path of said pins, a projection on said hook bar, a push bar pivoted to the hook bar, a swinging arm to which said hook bar is pivoted, and a travelling pinion which is arrested by the projection on the hook bar, said pinion engaging the swinging arm, when so arrested, to throw the push bar, substantially as described. 28th. The combination with an adding mechanism, composed of independently actuated wheels, of hook bars which are adapted to be tripped by said wheels at each revolution thereof, pivoted arms upon which said hook bars are mounted, push bars pivoted to the hook bars, and a travelling pinion which is adapted to engage said swinging arms and restore the hook bars to their normal position after being tripped, the restoration of said hook bars causing the push bars to actuate the next adjacent adding wheels in advance, substantially as described. 29th. The combination with rack bars which are adapted to be initially moved a predetermined distance, of an adding mechanism composed of independent wheels, which are adapted to engage the rack bars after said rack bars have been initially moved a predetermined distance, a lever for returning said rack bars to their normal position and actuating said adding wheels proportionately to the initial movement of their respective rack bars, a travelling mechanism which is adapted to transfer numbers from one adding wheel to the next in advance, said operating lever placing said travelling mechanism in position and storing up power for operating the same, substantially as described. 30th. In a calculating machine, the combination with an adding mechanism, of a transferring device which is adapted to travel the length of said adding mechanism, and an operating lever for placing said transferring device in position to operate upon the adding mechanism, and at the same time, store up power in said travelling device, whereby the adding mechanism is operated, substantially as described. 31st. The combination with an adding mechanism, of a transferring device which is adapted to co-operate therewith, said transferring device travelling along the adding mechanism, an operating lever for storing up power for said transferring device, and a fly-wheel whose momentum is utilized to operate the transferring device after the stored up power has become exhausted, substantially as described. 32nd. The combination with an adding mechanism, of a laterally travelling transferring device, which is adapted to co-operate therewith, an operating lever for storing up power for said transferring device when said lever is moving in one direction, said power becoming active when the lever is moving in an opposite direction, and connected mechanism between said power and transferring device, substantially as described. 33rd. The combination with an adding mechanism, of a transferring device, an operating lever, and connections between said operating lever and transferring device, said connections comprising a segment which is operated by said lever, a spring, a pinion meshing with the segment, a fly-wheel, and a pawl and ratchet mechanism between said pinion and fly-wheel, substantially as described. 34th. The combination with an adding mechanism, of a transferring device, comprising a rotary member which travels along a grooved shaft, and means for rotating said shaft, said means also causing the travel of the rotary member, substantially as described. 35th. The combination with

an adding mechanism, of a transferring device, a pinion for operating said transferring device, a grooved shaft upon which said pinion is mounted, an operating lever, a bell crank lever which is actuated by said operating lever for throwing the pinion from one side of the machine to the other, and a spring connected to said bell crank lever for returning the pinion to its normal position relative to the shaft upon which it is mounted, substantially as described. 36th. The combination with an adding mechanism, of a transferring device, a pinion for operating said transferring device, a grooved shaft upon which said pinion is mounted, a bell crank lever for moving said pinion from one end of the shaft to the other, a spring for returning said bell crank lever and pinion to their normal position, mechanism for rotating said grooved shaft, and an operating handle for operating said bell crank lever and shaft driving mechanism, substantially as described. 37th. The combination with an adding mechanism, of a transferring device, a pinion or notched wheel which is included in said transferring device, a grooved shaft upon which said pinion is mounted, a bell crank lever for sliding said pinion along its shaft, means for rotating said pinion, and an operating lever for moving the bell crank lever and also storing up power for the means which rotates the pinion and shaft, substantially as described. 38th. The combination with an operating lever, of a cross bar mounted thereto, a bell crank lever which is operated by said cross bar, an adding mechanism, a transferring device for the adding mechanism, a pinion for operating the transferring device, a grooved shaft, upon which said pinion is mounted, and means controlled by the operating lever for rotating the shaft and the pinion when the bell crank lever and pinion are returning to their normal position, substantially as described. 39th. The combination with an adding mechanism, of a transferring device, and means for actuating said transferring device, said means travelling along the adding mechanism and being in operative position when moving in one direction only, substantially as described. 40th. The combination with an adding mechanism, of a transferring device and operating lever, and connections between said transferring device and operating lever for throwing said transferring device out of an operative position, relative to the adding mechanism when said lever is moving in one direction, substantially as described. 41st. The combination with an adding mechanism, of a transferring device, which is adapted to travel along said adding mechanism, an operating lever, and means controlled by said operating lever, for rendering the transferring device inoperative, said means also throwing said transferring device into operative relationship to the adding mechanism, the operating lever storing up power to actuate said transferring device when it is in an operative position, relative to the adding mechanism, substantially as described. 42nd. The combination with an adding mechanism, of a transferring device which includes a pinion mounted upon a grooved shaft, a swinging frame in which said shaft is mounted, an operating lever, means for rotating said pinion and moving it longitudinally the grooved shaft, and connections between said operating lever and swinging frame for actuating said frame when the lever is in certain of its positions, substantially as described. 43rd. The combination with an adding mechanism, of a transferring device in which is included a pinion which travels along a grooved shaft, a swinging frame in which said shaft is mounted, an operating lever, a sliding bar which is adapted to be operated by said operating lever, a rock shaft which is operated by said sliding bar, a link connection between said rock shaft and swinging frame, and means controlled by the travelling pinion for operating said rock shaft to throw the pinion out of operative relation to the adding mechanism, substantially as described. 44th. The combination with an operating lever, of a sliding bar which is adapted to be operated upon the movement of said lever, a spring connected to said sliding bar, a rock-shaft adapted to be actuated by the movement of said sliding bar, a toothed arm carried by said shaft, a swinging frame, a link connection between said swinging frame and rock shaft, whereby, when said rock shaft is actuated by the sliding bar, said link is carried past dead centre, an adding mechanism, a transferring device in which is included a grooved shaft, mounted in a swinging frame, and a pinion, which is adapted to travel along said shaft and co-operate with the toothed arm of the rock shaft to cause the lowering of the swinging frame, substantially as described. 45th. The combination with a series of independently movable keys, of rack bars, one of which bars is common to a series of keys, a series of independently movable printing segments connected to and operated by their respective rack bars, an adding mechanism comprising independently movable adding wheels which engage the rack bars, said parts being so arranged that, when a key of a series is operated, it initially moves the rack bar to set its connected printing segment in position, and means for engaging the initially moved rack bar, with the adding wheel, and restoring said rack-bar and printing segment to their normal positions, the movement of restoring said parts actuating the adding mechanism, substantially as described. 46th. The combination with printing segments carrying type on their peripheries, and pivoted sections mounted upon said segments, said sections also carrying type, substantially as described. 47th. The combination with printing segments carrying type on their peripheries, of pivotal sections mounted upon said segments, said pivotal sections also carrying type, and means for operating said pivoted sections upon the movement of the printing segment, whereby a naught type will be thrown into printing line to the right of any actuated segment, substantially as described. 48th.

The combination of printing segments carrying type on their peripheries, of a pivoted section carrying a naught type, said naught type being normally out of the printing line, and means for throwing all of said naught type into printing line to the right of any actuated segments, substantially as described. 49th. The combination with printing segments, of pivoted sections carrying naught type, and pins or lugs on the ends of said pivoted sections which extend over the next adjacent sections, substantially as described. 50th. The combination with printing segments, of pivoted sections carrying naught type which normally rest upon a support, the rear arms of said sections being curved so that when the segments are actuated, the arms will be moved to one side of said support, substantially as described. 51st. The combination with printing segments, of pivoted sections carrying naught type, the rear arms of said sections normally resting upon a support which forces said arms upwardly when a segment is operated, and a lateral projection on each of said arms, whereby, when one segment is operated, the arm carried thereby will be elevated, which in turn elevates the remaining pivoted arms to the right thereof, substantially as described. 52nd. The combination with printing segments, of sections pivoted thereto carrying naught type, the rear portions of said sections being formed as curved arms, the inner faces of which are all described from a circle of which the axis of the segment is the centre, the outer faces of said arms being also described from the same centre, lateral projections at the ends of said arms which extend over the next adjacent arm, and a support upon which said arms normally rest, whereby when any of said segments are operated, all of the pivoted arms to the right thereof will also be operated, the curved outer faces of said arms being described from a circle having the axis of the printing segment as its centre when said arms are elevated, permitting any of the printing segments to the right of the one first operated to be operated without disturbing the position of the arms, substantially as described. 53rd. The combination with an operating lever of a slide bar connected thereto, a pivoted dog on such slide bar for operating the type hammer, a pawl carrying arm, a pawl mounted thereon, a ratchet wheel, a feed roll conjoined to said ratchet wheel and a lug on said slide arm, for operating said pawl-carrying arm so that after the type hammer has delivered its blow said lug will strike the pawl-carrying arm and feed the paper, substantially as described. 54th. The combination with a series of printing type mounted on segments which are grouped together, of a type hammer stationarily mounted relative to said type, means for moving the segments to present different type under the type hammer, a notched rock shaft upon which the type hammer is mounted, a paper-carrying frame slidingly mounted upon said shaft, and a latch on said frame for engaging the notches of the shaft whereby the frame is laterally adjustable relative to the type hammer, substantially as described. 55th. The combination with a notched rock shaft, of a type hammer carried thereby, a frame mounted upon said shaft, and a spring arranged on said frame and adapted to engage the notches in the rock shaft to hold the frame in an adjusted position, substantially as described. 56th. The combination with an adding mechanism, of cam wheels, printing segments, and means co-operating with said cam wheels to determine the position of the printing segments when it is desired to print the total amount in the adding mechanism, substantially as described. 57th. The combination with an adding mechanism, composed of independently actuated wheels, of cam wheels conjoined to said adding wheels, printing segments, and means co-operating with the cam wheels and printing segments for aligning the type on the printing segments to correspond with the amount contained in the adding mechanism, substantially as described. 58th. The combination with an adding mechanism, composed of independently actuated wheels, of cam wheels conjoined to the adding wheels, printing segments, and stop bars which are adapted to abut against said cam wheels to determine the position of the printing segments, substantially as described. 59th. The combination with an adding mechanism, of cam wheels carried thereby, stop bars adapted to abut against said cam wheels, a shoulder on each bar, and printing segments provided with pins which are adapted to co-operate with said shoulders, substantially as described. 60th. The combination with the key board, of an adding mechanism, cam wheels in said adding mechanism, rack bars, a total key which is adapted to release all of said rack bars, printing segments which are connected to said rack bars, and stop bars which are adapted to be engaged by the printing segments and be forced against the cam wheels when the total key is operated, to determine the position of the printing segments, substantially as described. 61st. The combination with the key board, of rack bars controlled thereby, printing segments connected to said rack bars, an adding mechanism containing cam wheels, stop bars which are adapted to be forced against said cam wheels when the printing segments are operated, springs for normally holding the said stop bars away from the cam wheels, and a total key for releasing all said rack bars and throwing the stop bars, which co-operate with the cam wheels, into position to be engaged by the printing segments, substantially as described. 62nd. The combination with a total key, of a cross bar connected thereto, rack bars to which the printing segments are connected, trips for said rack bars, which trips are adapted to be thrown when the total key is operated to release all of the rack bars, a swinging frame carrying stop bars, which frame is also operated to throw said stop bars into engagement with the printing segments when said total key is operated, an adding mechanism, printing seg-

ments, and cam wheels in the adding mechanism with which said stop bars co-operate after they are engaged by the printing segments, substantially as described. 63rd. The combination with rack bars, springs for forcing said rack bars forwardly, an adding mechanism, cam wheels in the adding mechanism, printing segments, stop bars which are adapted to engage the printing segments and be forced against the cam wheels, and springs which exert a tension to force said stop bars away from the cam wheels, the springs of the rack bars being master springs, by which the stop bar springs are compressed, substantially as described. 64th. The combination with the key board, of a calculating machine, of the operating lever, and a device which is adapted to be operated after the keys are depressed to retain the keys in their depressed position until two or more operations of the operating lever have been performed, substantially as described. 65th. The combination with the key board of a calculating machine, of a notched sector, a lever having a yielding detent for co-operating with the notches in said sector, means carried by said lever for retaining the keys in a depressed position, and an operating handle for operating said lever at each operation of the handle, substantially as described. 66th. The combination with the key board of a calculating machine, of a notched sector, a lever co-operating with said sector, a detaining bar carried by said lever for co-operating with the detaining fingers of the key board, a rack bar carried by said lever, a pawl in engagement with said rack bar, and an operating lever for moving said pawl at each operation, substantially as described. 67th. The combination with the key board of a calculating machine, in which key board are included retaining fingers of a detaining bar, which co-operates with said retaining fingers in said key board, an operating handle, and connected mechanism between said retaining bar and the operating handle, whereby, at each operation of said handle, said retaining bar is moved a step, the final step releasing the retaining fingers and permitting the keys to rise from their depressed position, substantially as described. 68th. The combination with the key bars, of detaining fingers carried thereby, a detaining bar which is adapted to co-operate with said fingers, a lever for moving said bar into and out of engagement with the fingers, an operating handle, and means operated by said handle for imparting a step-by-step movement to the detaining bar until the same has released the detaining fingers of the key bars, substantially as described. 69th. The combination with the key bars, of detaining fingers carried thereby, a detaining bar, a lever to which said bar is connected, a rack bar connected to the lever, a pawl, which is adapted to co-operate with said rack bar, a pawl-carrying lever, and an operating handle which actuates said pawl-carrying lever in certain of its positions, substantially as described. 70th. A key bar for calculating machines which is adapted to be pivoted at one end, a recess forming a stop, and a finger which forms the lower wall of said recess, substantially as described. 71st. The combination with printing segments carrying type on their peripheries, of type-carrying sections pivotally connected to said segments, the type on said pivoted sections normally occupying a position some distance away from the type of the segments, thereby providing a space between the two, and a type-hammer which is so arranged as to strike in said space when the printing segments and their connected type-carrying sections are in a normal position, substantially as described. 72nd. The combination with printing segments carrying type on their peripheries, of type-carrying sections pivotally connected to said segments, the type on said pivoted sections normally occupying a position some distance away from the type of the segments, thereby providing a space between the two, a type-hammer which is so arranged as to strike in said space when the printing segments and their connected type-carrying sections are in a normal position, mechanism for moving said segments so that they will present type in the path of the type-hammer, and means for moving all of the pivoted segments to the right of an actuated segment, to fill up the space before mentioned, so that said pivoted sections will present their type to the type-hammer and make a printing line in which the type on the actuated segment are included, substantially as described.

No. 56,673. Game Apparatus. (Appareil pour jeu.)



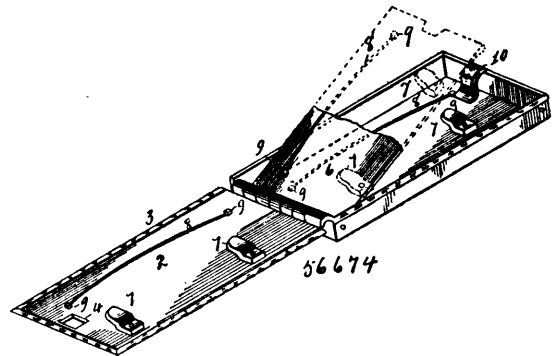
Thomas Renwick, Miami, Manitoba, Canada, 16th July, 1897; 6 years. (Filed 6th May, 1897.)

Claim.—1st. In a game apparatus, the combination, with a base board provided with compartments on its surface, of a hollow pyramid placed over the said compartments and provided with holes in its sides communicating with the said compartments, substantially as set forth. 2nd. In a game apparatus, the combination, with a pyramid provided with a hole at its apex, of an ejector tube let into the said hole and provided with a spring-actuated piston, and a

catch projecting within the said tube and normally holding the said piston depressed, substantially as set forth. 3rd. In a game apparatus, the combination, with a base board provided with compartments on its surface, of a hollow pyramid placed over the said compartments and provided with holes in its sides communicating with the said compartments, and a hole in its apex, and an ejector tube provided with a spring-actuated piston and let into the said hole at the apex of the pyramid, substantially as set forth. 4th. An ejector tube provided with a spring-actuated piston, a pivoted catch projecting through a slot in the side of the tube and operating to retain the piston in its depressed position, guides for the catch on the side of the tube, and an elastic band encircling the said tube and catch, substantially as set forth.

No. 56,674. Railroad Defect Card.

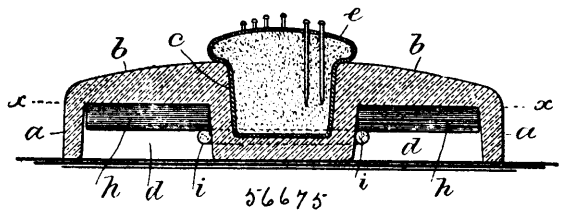
(Carte indiquant les déficiences sur les chemins de fer.)



Gustav Fensky, Chesterton, Indiana, U.S.A., 16th July, 1897; 6 years. (Filed 18th May, 1897.)

Claim.—1st. The herein described protector for railway defect cards, consisting of a casing adapted to be secured to a railway car at any suitable point, a cover hinged to said casing, clamps secured to the inside of said cover and upon the top surface of the bottom of said casing, and connecting wires strung longitudinally of said parts, beneath which and said clamps the defect cards are adapted to be inserted. 2nd. The herein described protector for railway defect cards, consisting of a casing adapted to be secured to a railway car at any suitable point, a cover hinged to said casing, and fitting within the same, clamps secured to the inner surface of the bottom of said casing, to the inner surface of said cover and to both surfaces of said plate, and connecting wires strung longitudinally of said parts and located directly above said clamps, beneath which and said clamps said defect cards are adapted to be inserted. 3rd. The herein described protector for railway defect cards, consisting of a casing adapted to be secured to a railway car at any suitable point, a cover hinged to said casing having an opening at one point therein and a ledge upon the under surface of its outer edges, clamps upon the inner surface of the bottom of said casing and upon the inner surface of said cover, wires strung longitudinally of said bottom and said cover, beneath which and said clamps the defect cards are adapted to be inserted, and a spring catch adapted to fit within the opening in said cover for locking the latter in its closed position, substantially as and for the purpose described.

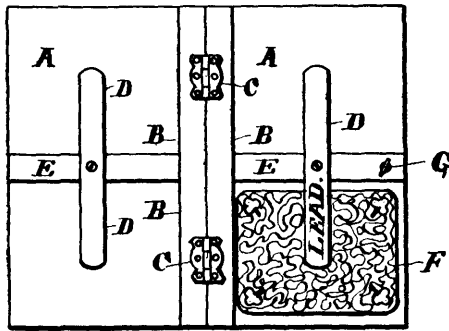
No. 56,675. Desk Implement. (Appareil pour pupitres.)



R. R. Vernon, Ridge Road, New Jersey, U.S.A., 16th July, 1897; 6 years. (Filed 8th May, 1897.)

Claim.—1st. As a new article of manufacture, a desk implement of transparent material of flat circular form, having a central cavity in its upper surface, an annular recess in its under surface, and a collection of flat superposed rings within said annular recess upon whose faces are printed the calendar months, one entire ring at a time being visible through the transparent material, and means for holding the same in place, substantially as set forth. 2nd. As a new article of manufacture, a desk implement, preferably of glass of flat circular form, having a slightly convex upper surface and a central cavity therein, a cushion for pins within said cavity and having an annular recess in its under surface, a collection of flat superposed rings of paper or similar material within said annular recess upon whose upper faces are printed the calendar months, one on each ring to be seen through the glass, and a round rubber band for holding the said rings in place, substantially as set forth.

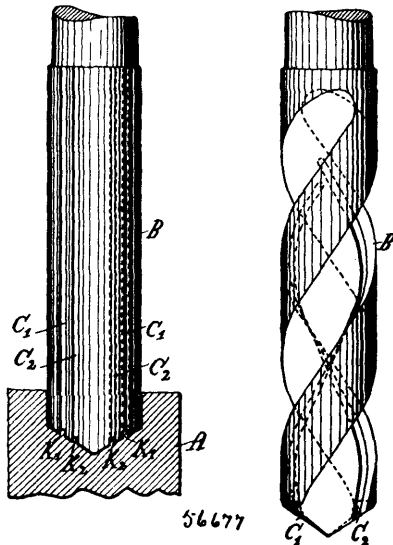
No. 56,676. Apparatus for Playing Duplicate Whist. (*Appareil pour jouer au whist.*)



Lewis W. Heath, Grand Rapids, Michigan, U.S.A., 16th July, 1897; 6 years. (Filed 10th May, 1897.)

Claim.—1st. In a card-holder for playing duplicate whist, the combination with the holder proper, of a transverse strip approximately the thickness of thirteen cards secured to the face of the holder, and a metallic spring attached intermediate its ends to said strip and adapted with its free ends to clamp packages of cards to said holder, substantially as described. 2nd. In a card-holder for playing duplicate whist, the combination of two wings hinged together and adapted to be folded to simulate a book and provided on the back with a mark to designate its number so that when opened the mark will be concealed, a transverse strip approximately the thickness of thirteen cards attached to the face of each wing, a metallic spring secured intermediate its ends to said strip and at right angles thereto and adapted with its free ends to clamp packages of cards to said holder, substantially as described. 3rd. In a card-holder for playing duplicate whist, the combination of two wings, A, hinged together, the longitudinal strips, B, each approximately the thickness of thirteen cards, attached to the adjacent edges of said wings, hinges secured to said strips, transverse strips, E, attached centrally to the faces of said wings, a metallic spring secured intermediate its ends to each of said strips, E, and at right angles thereto, said spring being adapted with their free ends to clamp packages of cards to said holder, substantially as described.

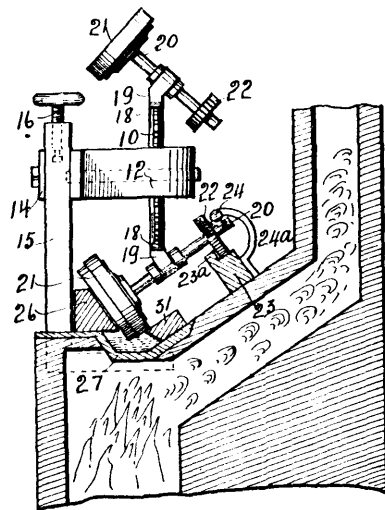
No. 56,677. Bits and other Boring Tools. (*Miche, etc.*)



Martin Steudner, Gera-Debschwitz, Germany, 16th July, 1897; 6 years. (Filed 10th May, 1897.)

Claim.—1st. An improved borer having straight running cutting edges, S¹ and S², which are provided with one or more hollows, C¹, C², of any form, for the purpose of cutting guiding coubs, K¹, K², on the base of the bore-hole and of preventing thus the borer from escaping. 2nd. A borer having straight running cutting edges, S¹, S², provided with one or more hollows, C¹, C², and provided longitudinally on the side of the edges with one or more grooves for the purpose of obtaining always straight edges with hollows by means of after grinding.

No. 56,678. Soldering Machine. (*Machine à souder.*)



Bertrand H. Short, Vancouver, British Columbia, Canada, 16th July, 1897; 6 years. (Filed 12th May, 1897.)

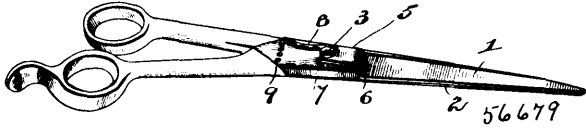
Claim.—1st. In combination with a machine for soldering cans of uneven radii, having a solder trough arranged longitudinally above a furnace and beneath a runway for cans, and sprocket belt wheels adjustably arranged above and at either end of said runway, shackle links arranged at intervals upon a sprocket belt taking round the said wheels, spindles 20 arranged to loosely journal in apertures fixed at an angle in said links 17, of self adjusting can receptacles 21 arranged on the depending ends of the spindles 20, and pinions 22 rigidly fixed near the opposite ends of the spindles and made to engage a fixed rack arranged in their track, substantially as set forth. 2nd. In an apparatus for soldering cans of uneven radii, by means of rolling movement over a receptacle of heated solder, the combination of standards 15 having adjustable frames arranged thereon, said frames carrying wheels 10 having a sprocket belt passing therearound, toggle links 19 inserted at regular intervals in said belt, the projecting portion of said links being turned laterally, of pinions or shafts 20 passing through apertures therein, which apertures are at angles of approximately 20 degrees to the plane of the sprocket belt, of can receiving sockets 21 adjustably arranged upon the ends of the shafts or spindles 20, of means for controlling said spindles from lateral movement and means for imparting rotary motion to the same while passing over a solder trough, whereby the can receptacles will be rolled along a common runway, as set forth. 3rd. In an apparatus for can soldering, having wheels arranged at either side and a sprocket belt or chain passing over a common runway, spindles arranged along said chain, the same being provided with can receptacles on their depending ends which receptacles are self adjusting as to radius, pinions 22 rigidly fixed near the opposite ends of the said spindles, a rack 23 engaging the pinions in their lower path, a guide-rod 24 made to engage the upper portions of the projecting ends of the spindles 20 in proximity to the pinions, while engaging the rack 23, substantially as set forth. 4th. In a machine for soldering cans having sprocket belt wheels and a belt taking round the same, and can conveyers arranged at intervals along said belt, the combination of spindles passing through apertures therein, of can receptacles adjustably arranged on the ends thereof, the same being arranged to adjust their bearing radii, and means for revolving the same at uniform speed, as set forth. 5th. In a machine for soldering cans, can receptacles 21, spider castings 21^a suitably secured thereto, the same having slots therein, spindles 20 having flat shanks passing through the said slots and collars arranged on either side of the said castings, and means for passing the said can receptacles over a common runway by a rolling movement, substantially as and for the purposes set forth. 6th. In a can soldering machine having belt wheels arranged at either side of a fixed trough, a frame adjustably arranged and made to support one of the belt wheels, a sprocket belt having can conveyers thereon and fixed angling to the line of the said wheels, a hoop or guide 25 secured to the branches of the frame 12, the same being made to engage and prevent cans from being detached from the conveyers while taking round the arc of the wheel 10, as and for the purposes hereinbefore set forth.

No. 56,679. Scissor or Shear. (*Ciseaux ou forces.*)

Jacob Filton Shultz, San Janisto, California, U.S.A., 16th July, 1897; 6 years. (Filed 12th May, 1897.)

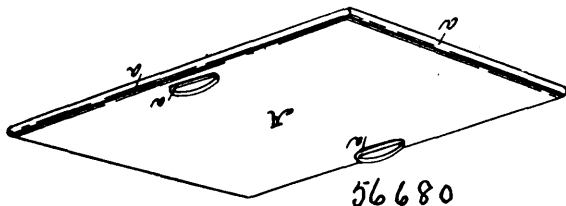
Claim.—1st. The herein described fastener and spring tension device, comprising a spring-key having a loose pivotal connection at a

point intermediate its ends with the pivot of the shear-blades and formed with a triangular or cam-shaped lip disposed substantially



at right angles to the body of the key and resting as to its inclined edge against and adapted to be moved transversely of the wide bevelled face of one of the blades of the shears or scissors, and provided with finger portions in engagement with one end of the pivot of said shears or scissors, and means for swinging said tension key and holding the same at any desired adjustment for the purposes of regulating the relative pressure between the blades, substantially as set forth. 2nd. The herein described fastener and spring-tension device, comprising a spring key having a loose pivotal connection at a point intermediate its ends with the pivot of the shear-blades and formed with a triangular or cam-shaped lip disposed substantially at right angles to the body of the key and resting as to its inclined edge against and adapted to be moved transversely of the wide bevelled face of one of the blades of the shears or scissors, said key being formed with rearwardly extending fingers engaging oppositely-disposed notches in the pivoted of the shears or scissors, one of said fingers being deflected or hooked at its extremity to engage with any one of a transversely extending series of sockets or depressions formed in the face of the blade against which said key rests by means of which the tension which the spring-key exerts on the blades may be regulated, substantially as and for the purpose specified.

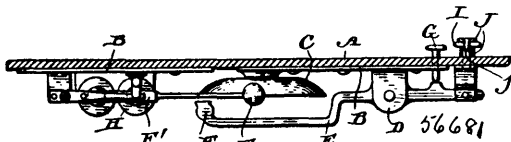
No. 56,680. Baking Pan. (Tourtière.)



Emma J. Dykeman, Rural Grove, New York, U.S.A., 16th July, 1897; 6 years. (Filed 22nd May, 1897.)

Claim.—A bake tin comprising the plate A having a beaded edge a' and integral ears a , provided with the hinged handles a^2, a^2 , substantially as and for the purpose set forth.

No. 56,681. Bell Mechanism. (Mechanism pour cloches.)



Joseph Torry Haskins, Malden, Mass., U.S.A., 16th July, 1897; 6 years. (Filed 28th May, 1897.)

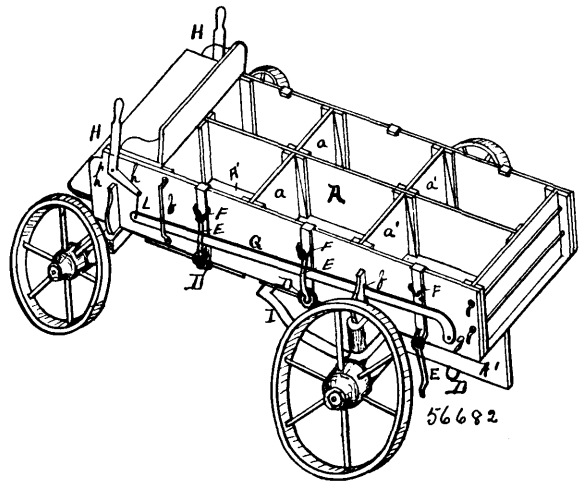
Claim.—1st. In combination with the bell push pin and mechanically actuated hammer of a car, a second hammer, electro-magnetic mechanism for actuating the same, and circuit-closing devices arranged to be operated at will by the motorman, both hammers being adapted to strike the same bell, substantially as set forth. 2nd. In combination with car bell and mechanically operated hammer, a second hammer, electro-magnetic mechanism for actuating the same and circuit-closing devices for said mechanism consisting in part of a movable contact mounted on the tail of the said hammer and replaced thereby, substantially as set forth. 3rd. In combination with a depressible inclined spring rising above the floor of a car, circuit closing devices arranged to be operated by its depression and a hammer thereby actuated to strike a bell substantially as set forth. 4th. The two hammers E and F and the bell, in combination with circuit closing devices partly carried by hammer E and an inclined spring actuating them as set forth. 5th. An inclined spring, a push-pin depressed and raised thereby, a contact plate depressed by the said pin and provided with inclined flanges, fixed contact plates arranged for contact with said flanges, conductors connected to said fixed plates, an electro-magnet in the circuit of said conductors, means for automatically replacing the said contact plate, and a hammer and bell actuated by the said magnet, substantially as set forth.

No. 56,682. Wagon Box. (Boite de wagons.)

Edward Paul Langford, Harwick, Ontario, Canada, 16th July, 1897; 6 years. (Filed 28th May, 1897.)

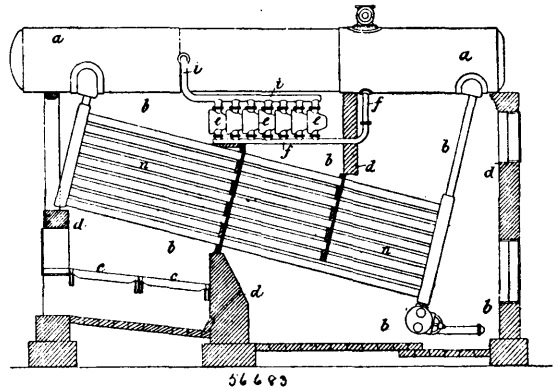
Claim.—The combination with a wagon box subdivided, each compartment having a hinged door or bottom A' , the strap C, the

link D, the bar E, and the link F, the long lever G pivoted by the bolt g , the oscillating link L engaging with the forward end of the



lever G and the lower end of the arm h , of the lever H, its pivoted connection at h' , the bracket b , the slot f , substantially as specified and hereinbefore set forth.

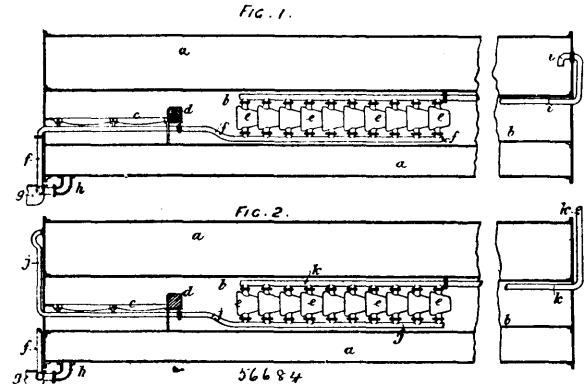
No. 56,683. Steam Boiler. (Chaudière à vapeur.)



Edward Makin, Manchester, Lancaster, England, 16th July, 1897; 6 years. (Filed 17th June, 1897.)

Claim.—1st. The combination with the ordinary steam generating tubes and steam separating drum, of any number of hollow walled circulating vessels preferably conical in form and arranged in series, substantially as herein set forth. 2nd. In combination the ordinary steam generating tubes, the steam separating drum, a series of hollow walled circulating cones arranged as a steam generator and a second series of said cones arranged as a steam superheater, substantially as herein set forth.

No. 56,684. Steam Generator. (Générateur de vapeur.)

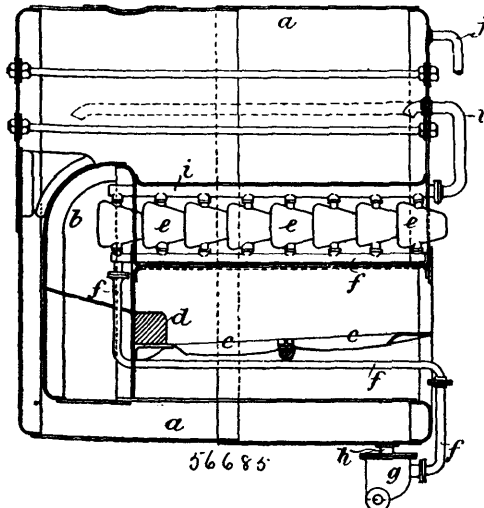


Edward Makin, Manchester, Lancaster, England, 16th July, 1897; 6 years. (Filed 17th June, 1897.)

Claim.—1st. In combination, any number of hollow walled circulating vessels preferably conical in form and connected to supply

and delivery pipes, said vessels being placed in the furnace flue preferably with their larger ends towards the furnace and overlapping the smaller ends of the preceding cones, but without touching and being exposed on all sides to the action of the heated gases from the furnace, substantially as herein set forth for the purposes specified. 2nd. In combination, the furnace flue *b*, any number of hollow walled circulating cones *c* placed therein, and feed and delivery pipes connected to said cones, substantially as herein set forth. 3rd. The combination with a series of hollow walled circulating cones *c* arranged in the furnace flue as a steam generator and connected to feed and delivery pipes, of a series of hollow walled circulating cones *c* arranged in the furnace flue as a steam superheater, substantially as herein described with reference to the accompanying drawings. 4th. In combination, a series of hollow walled cones *c* and connections arranged in a furnace flue as a steam generator, a second series of said cones arranged as a steam superheater and a third series arranged as a feed water heater, substantially as herein set forth. 5th. In combination, a series of hollow walled cones *c* and connections arranged in a furnace flue as a steam generator, and a second series of said cones arranged as a feed water heater, substantially as herein set forth.

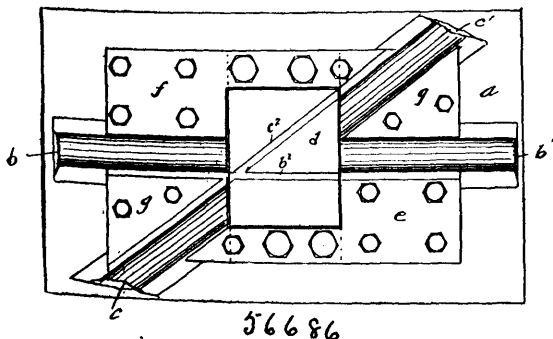
No. 56,685. Steam Boiler. (Chaudière à vapeur.)



Edward Makin, jr., Manchester, Lancaster, England, 16th July, 1897; 6 years. (Filed 17th June, 1897.)

Claim.—1st. In combination, any number of hollow walled circulating vessels preferably conical in form and connected to supply and delivery pipes, said vessels being placed in the furnace flue preferably with their larger ends towards the furnace and overlapping the smaller ends of the preceding cones, but without touching them and being exposed on all sides to the action of the heated gases from the furnace, substantially as herein set forth for the purposes specified. 2nd. In combination, the furnace flue *b*, any number of hollow walled circulating cones *c* placed therein and feed and delivery pipes connected to said cones, substantially as herein set forth. 3rd. The combination with a series of hollow walled circulating cones *c* and connections arranged in a furnace flue as a steam generator, of a second series of said cones arranged as a steam superheater, substantially as herein set forth.

No. 56,686. Railway Frog. (Rail de croisement.)

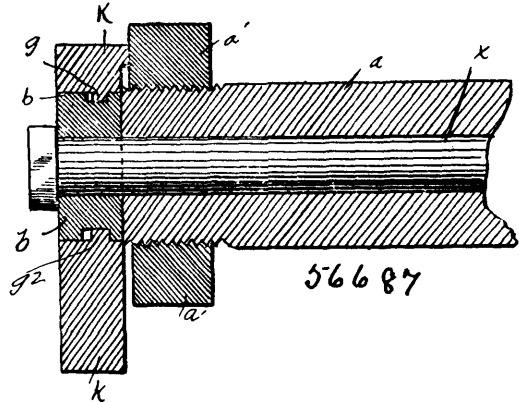


William J. McClellan, Portland, Connecticut, U.S.A., 16th July, 1897; 6 years. (Filed 18th June, 1897.)

Claim.—In combination first the block *d* provided with flange-ways *b*², *c*² and feet *d*¹, second the support-pieces *e*, *f*, each fitting

to two sides of the block *d* and overriding a foot *d*¹, and third the tracks *b*, *b*¹, *c*, *c*¹, all substantially as described and for the purposes set forth.

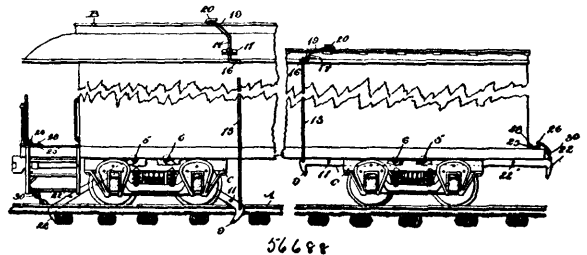
No. 56,687. Nut Lock. (Arrête-écrou.)



William C. Althen, Columbus, Ohio, U.S.A., 16th July, 1897; 6 years. (Filed 19th June, 1897.)

Claim.—In a nut lock, the combination with the spindle, a nut thereon, and a disc secured against the end of said spindle, a peripheral groove in said disc and oppositely-located ways leading to said groove, of a ring *g* having oppositely-located forwardly-projecting lugs, the latter being adapted to enter said disc groove through the medium of said ways, substantially as and for the purpose specified.

No. 56,688. Car Brake. (Frein de chars.)



Stephen Rogers, Waldo, Arkansas, U.S.A., 16th July, 1897; 6 years. (Filed 19th June, 1897.)

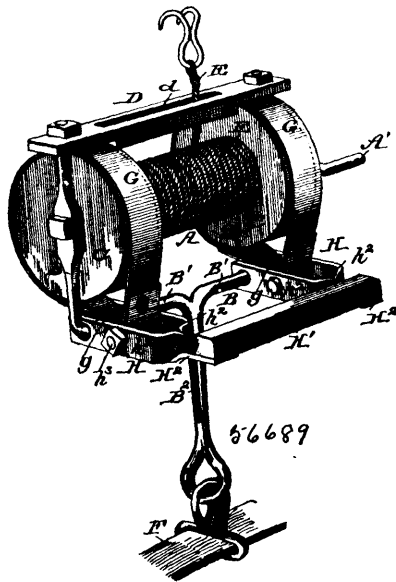
Claim.—1st. In a car-brake, the combination with the car, of grapples pivoted thereto, a rotatable shaft, means for locking the same, and a connection between said shaft and the grapples whereby the latter may be held suspended. 2nd. In a car-brake, the combination with the car, of grapples pivoted thereto, a rotatable shaft provided with a handle, a keeper adapted to engage with the handle and lock the shaft, and a connection between the shaft and the grapples. 3rd. In a car-brake, the combination with a frame connected to the car, of grapples pivoted to the frame, a rotatable shaft provided with arms, cables connected to the grapples having links which receive the arms, and means for locking said shaft so that the grapples will be held raised. 4th. In a car-brake, the combination with a frame connected to the car, of grapples pivoted to the frame, a rotatable shaft provided with arms, a pivoted keeper adapted to engage with the handle and lock the shaft, and cables connected to the grapples and having links which receive the arm.

No. 56,689. Fire Escape. (Sauveteur d'incendie.)

Daniel Cronin, Mannington, West Virginia, U.S.A., 16th July, 1897; 6 years. (Filed 19th June, 1897.)

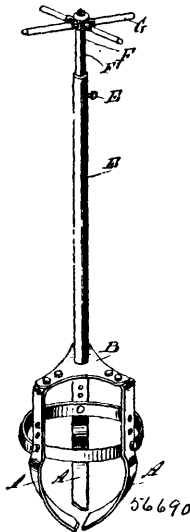
Claim.—1st. The improved fire escape herein described consisting of the drum, the main frame having bearings for said drum and provided above the same with a cross bar having a longitudinal slot or passage for the rope, said main frame being provided below the drum with inwardly projecting arms having the hanger arms at their inner ends, the brake setting frame having its arms bifurcated at the branches or forks thereof spaced apart and pivoted on the lower inwardly projecting arms of the main frame and the brake-ropes held at one end to the main frame between the branches of the brake setting frame and connected at their other ends with said brake setting frame, substantially as described. 2nd. In a fire escape substantially as described the combination of the drum, the main frame having side bars supporting the drum and inwardly project-

ing arms below said drum, the brake setting frame having its arms bifurcated and the branches or forks thereof spaced apart and pivot-



ed on the main frame, and the brake straps connected at one end to the brake frame between the branches thereof, and at their other ends to the inwardly projecting arms of the main frame between said branches of the brake setting frame, substantially as described.

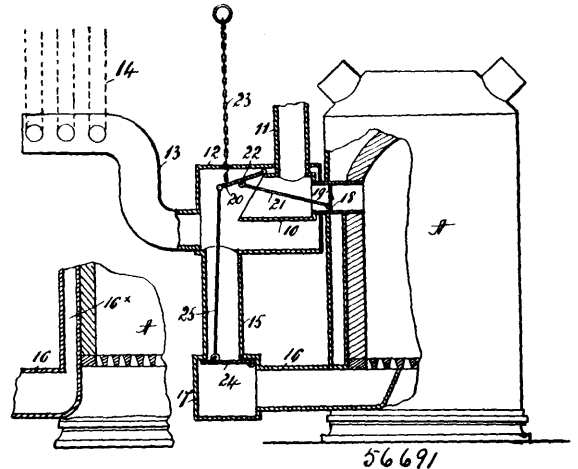
No. 56,690. Earth Auger. (Tarière.)



Joseph Carter and William Richmond, both of Blyth, Ontario, Canada, 16th July, 1897; 6 years. (Filed 19th June, 1897.)

Claim.—1st. An earth auger having a longitudinally adjustable handle. 2nd. An earth auger having a handle formed of two sections slidable longitudinally on each other. 3rd. An earth auger having a handle consisting in a tube, a rod slidable therein, and a set screw carried by the tube to engage the rod and holding the same adjustably on the tube. 4th. An earth auger, having a spider-shaped head, a blade secured to each arm of the spider and projecting downwardly and inwardly therefrom, and a band secured to the blades. 5th. An earth auger having downwardly extending blades, and a band adjustable thereon. 6th. An earth auger having a head, a plurality of blades secured thereto and projected downward therefrom, the lower ends of the blades being free, and a band adjustable vertically on the blades to regulate the stiffness of the lower ends thereof.

No. 56,691. Ventilating Attachment for Heaters. (Appareil ventilateur pour chauffeurs.)



William Miller, New York, State of New York, U.S.A., 17th July, 1897; 6 years. (Filed 19th June, 1897.)

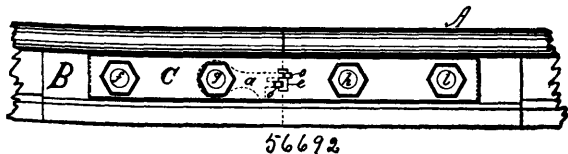
Claim.—1st. A device of the character described, comprising a smoke flue, a heater provided with a smoke outlet having connection with said smoke flue, a valve controlling the smoke outlet of the heater, an air flue adapted to draw air from apartments to be ventilated, also having connection with said smoke flue, a valve controlling the connection between said air pipe and the smoke flue, and means for simultaneously actuating said valves to move one valve into closed and the other into open position, substantially as set forth. 2nd. A device of the character described, comprising a smoke flue, a heater provided with a smoke outlet having connection with said smoke flue, a valve controlling the smoke outlet of the heater, an air flue adapted to draw the air from apartments to be ventilated, having connection with said heater and also having connection with the smoke flue, valves controlling the connections between the air flue and the heater and between the air flue and smoke flue, and means for simultaneously actuating said valves to move the valve controlling the connection between the air flue and the smoke flue into one position and to move the valves controlling the smoke outlet of the heater and the connection between the air flue and the heater into the other position, substantially as set forth. 3rd. A device of the character described, comprising a smoke flue, a heater provided with a smoke outlet having connection with said smoke flue, a valve controlling the smoke outlet of the heater, an air flue adapted to draw air from an apartment to be ventilated, also having connection with said smoke flue, a valve controlling the connection between the air flue and the smoke flue, a link connection between said valves whereby when one is opened the other is closed, and means for actuating one of the said valves, substantially as set forth. 4th. A device of the character described, comprising a smoke flue, a heater provided with a smoke outlet having connection with said smoke flue, a valve controlling the smoke outlet of the heater, an air flue adapted to draw air from apartments to be ventilated, having connection with said smoke flue, and also having connection with the heater, valves controlling the connection between the smoke flue and the air flue and between the air flue and the heater, and link connections between the valve which controls the connection between the air flue and the smoke flue and the other two valves, said connection being arranged when the first mentioned valve is moved into one position to move the other valve to the other position, substantially as set forth. 5th. A device of the character described, comprising a smoke flue, a heater having a smoke pipe provided with an open end and adapted for communication with the smoke flue at a point between said open end and the heater, a drum inclosing said smoke outlet of the heater at the open end thereof, an air flue connected to and adapted to supply air to said drum, a valve arranged to close the open end of said smoke outlet of the heater, a second valve controlling said smoke outlet at a point between the heater and the smoke flue, and a connection between said valves adapted when one valve is moved into one position to move the other valve into the other position, substantially as set forth.

No. 56,692. Nut Lock. (Arrête-écrou.)

Lewis Albert Chisholm and Robert Chisholm Robblee, both of Acadia Mines, Nova Scotia, Canada, 17th July, 1897; 6 years. (Filed 21st June, 1897.)

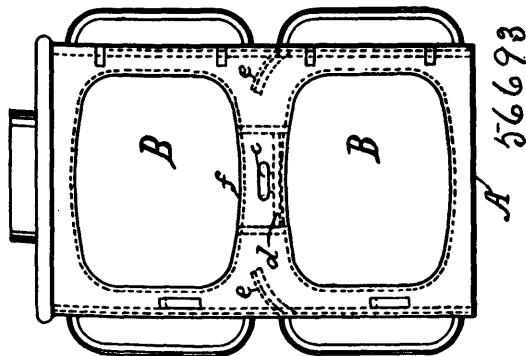
Claim.—1st. A railroad nut lock comprising a thin plate of metal having perforations in it corresponding to the position and size of the nuts on the joint bolts, and a thin metal catch with opening tongues, made and applied, substantially as and for the purpose

hereinbefore set forth and described. 2nd. A railroad nut lock combining the locking plate C, having the slot e and the perforations j,



k, l, m, with the catch σ having the curved spring tongues o o, substantially as and for the purpose hereinbefore set forth and described.

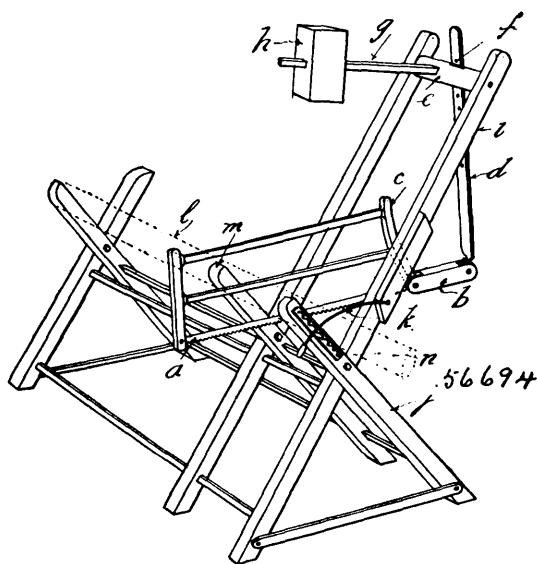
No. 56,693. Stove-Oven. (*Fourneau de poêles.*)



Joseph W. Jack, Truro, Nova Scotia, Canada, 17th July, 1897; 6 years. (Filed 21st June, 1897.)

Claim.—1st. The combination of the two ovens B B, with the rectangular tubes f f, the openings o o o o o, the sliding plates d d, the slots c, and the sliding knobs x x, substantially as and for the purpose hereinbefore set forth and described. 2nd. In a double oven the deflecting plates e e, substantially as and for the purpose hereinbefore set forth and described. 3rd. The combination of the ovens B B and the tubes f f, the openings o o o o o, the sliding plates d d, the knobs x x, with the deflecting plates e e, and the doors a a, substantially as and for the purpose hereinbefore set forth and described.

No. 56,694. Wood Sawing Machine.
(*Machine à scier le bois.*)



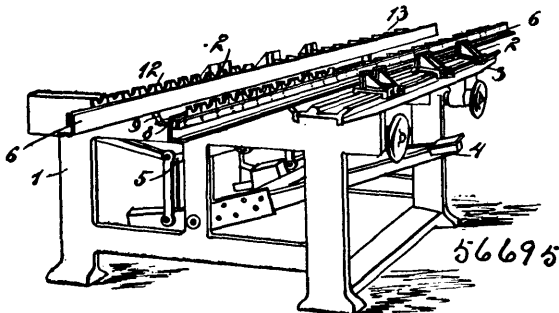
Stanley Munday, Rugby, Warwick, England, 17th July, 1897; 6 years. (Filed 21st June, 1897.)

Claim.—1st. The combined construction and arrangement of the various parts substantially as described and illustrated herein. 2nd. In sawing machines, an adjustable swinging arm connected to a saw, said arm being attached to a spindle carrying an weight or counterpoise upon a rod or lever, so that the weight or counterpoise will tend

to operate the saw in one direction of its motion, the various parts being supported in a frame which may be taken apart when required a clamp or slip for clamping or holding the wood when being sawn, a support so arranged that when the wood is being sawn the same is supported so as to cause the sawcut to tend to open, thus preventing the catching or jamming of the saw when in use.

No. 56,695. Blind Slating Machine.

(*Machine à faire les lames de persiennes.*)

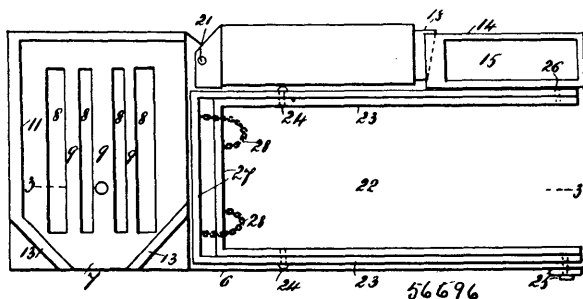


George Isaac Parks and William Dwight Nelson, both of Augusta, Georgia, U.S.A., 17th July, 1897; 6 years. (Filed 21st June, 1897.)

Claim.—1st. A blind slating machine, comprising a frame, clamping dogs movable thereon, slat supporting plates, means for adjusting and securing said plates one with rotation to the other, the said adjusting means consisting of a longitudinally movable bar, and link connections between the bar and plate and slat holding teeth removably connected with said plates, substantially as specified. 2nd. A blind slating machine, comprising a frame, frame clamping jaws moving toward each other on said frame, means for moving the same, slat supporting plates, links pivoted at one end to said plates and at their opposite ends to a central bar, a clamping device for securing the links and plates as adjusted, pockets formed in said plates, teeth adapted at their upper ends to engage slats, and shank portions on said teeth adapted for removable engagement in said pockets, substantially as specified. 3rd. A blind slating machine, comprising in combination with a clamping machine, a pair of plates adjustable toward and from each other, link connections for causing said adjustments, a bar extended longitudinally of each plate, spacing blocks between a bar and its plate, and slat supporting teeth having shank portions adapted to engage in pockets formed by said bars and plates, substantially as specified.

No. 56,696. Combination Ironing Stand.

(*Planche à repasser.*)

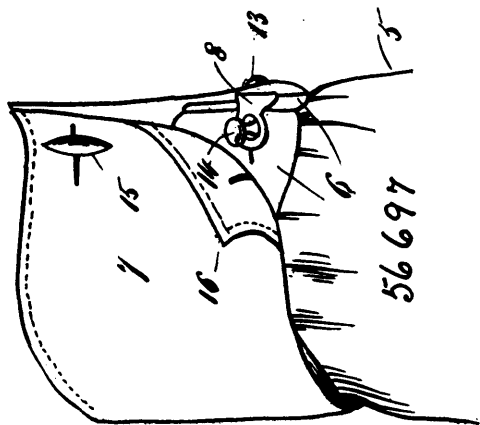


Edward Stacknick and Victor Stacknick, both of New York, U.S.A., 17th July, 1897; 6 years. (Filed 21st June, 1897.)

Claim.—1st. A holder for sad-irons, comprising a bottom plate or board, a frame at one end thereof adapted to receive the iron, said bottom plate or board being also provided adjacent to its opposite end and at one side thereof with a holder for a cake or block of wax, and also with a pivoted plate or board, which is covered with a strip of cloth or textile material, and that part of the holder adjacent to the pivoted plate or board and the holder for the wax being provided with a covering of sand-paper or similar material, substantially as shown and described. 2nd. A holder for sad-irons, comprising a bottom plate or board, a frame at one end thereof adapted to receive the iron, said bottom plate or board being also provided adjacent to its opposite end and at one side thereof with a holder for a cake or block of wax, and also with a pivoted plate or board which is covered with a strip of cloth or textile material, and that part of the holder adjacent to the pivoted plate or board and the holder for the wax being provided with a covering of sand-paper or similar material, and said bottom plate or board being also provided with a supplemental support, consisting of two similar yokes or frames, which are pivotally connected, and the cross heads of which are

connected by chains, said supplemental support being adapted to hold the sad-iron in an inverted position, substantially as shown and described.

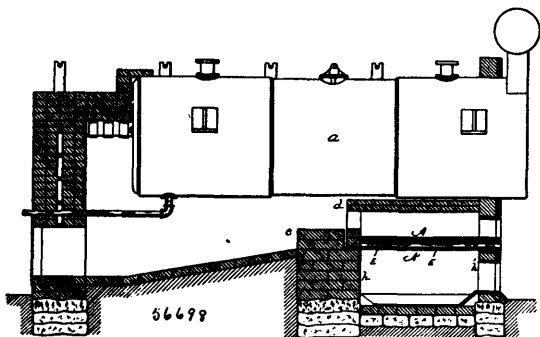
No. 56,697. Link Cuff Holder. (*Porte-chainon de poignets.*)



Joseph Schishima, New York, State of New York, U.S.A., 17th July, 1897; 6 years. (Filed 21st June, 1897.)

Claim.—1st. A cuff holder, consisting of a curved or bent metal strip, which is provided at one end with an opening, and at the opposite end with a shank on which is formed or to which is secured a knob, button or head, substantially as shown and described. 2nd. A cuff holder, consisting of a metal strip bent centrally so that the ends thereof project in different directions and at an angle to each other, one of said ends being also provided with an opening which is adapted to receive a cuff button, and the opposite end being provided with a button, knob or head, substantially as shown and described.

No. 56,698. Furnace. (*Fournaise.*)

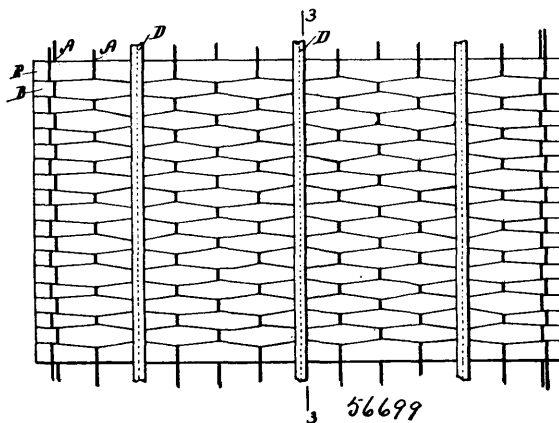


Edward Fales, Winthrop, Highlands, Mass., U.S.A., 17th July, 1897; 6 years. (Filed 21st June, 1897.)

Claim.—1st. The combination of a furnace, a fuel support therein of greater length than width, and means for admitting air only at or near the side edges of the fuel support. 2nd. The combination of a furnace, a fuel support therein of greater length than width, and means for directing the major portion of the air around and over the side edges of the fuel support. 3rd. In a furnace, the combination with the side walls having overhanging ledges, of a fuel support having a longitudinally arched central portion and side flanges which set under said overhanging ledges, substantially as specified. 4th. In a furnace, the combination with the side walls having overhanging ledges, of a fuel support having a longitudinally arched central portion and side flanges which set under said overhanging ledges, and means for admitting air around and over the side edges of the fuel support. 5th. In a furnace, the combination with the side walls having overhanging ledges, of a fuel support having a longitudinally arched imperforate centre and perforated flanges which extend under said overhanging ledges, substantially as specified. 6th. In a furnace, the combination with the side walls having overhanging ledges, of a fuel support having a longitudinally arched imperforate central portion and perforated side flanges which set under said overhanging ledges, there being air inlets between the flanges and ledges, substantially as specified. 7th. In a steam boiler or other furnace, the side walls *b* provided with overhanging inwardly projecting portions *H*, the dividing wall *e'* provided with the overhanging outwardly projecting portions *H'*, and the fuel supports, consisting of the central raised gable portions *A* and horizontal wings *A'* extending from opposite sides of said central portion, said fuel supports being sustained by the furnace and having their edges extending under said overhanging portions

H, *H'*, substantially as described. 8th. A combustion chamber having narrow and continuous gas-generating and solid-fuel burning zones, a superjacent zone for the combustion of the gases, means for admitting air to the free side of the solid-fuel burning zone, and means for producing a draft longitudinally of the zones, substantially as described. 9th. The combination of a furnace, a fuel support comprising a central imperforate plate, and side imperforate plates supported above the central plate, forming a pocket, and means for admitting air at the side edges of the side and central plates. 10th. The combination of a furnace, a fuel support comprising a central imperforate plate and two side imperforate plates, the said side plates arranged and supported above the central plate, forming a pocket, with the inner side edges of the side plates projecting over the adjacent edges of the same. 11th. In a furnace, the combination with the side walls having overhanging ledges, of a fuel support comprising a central imperforate plate and two side imperforate plates, forming a pocket, the outer side edges of the side plates extending under and below the overhanging ledges, as and for the purpose set forth. 12th. The combination of a furnace and a fuel support, comprising a central imperforate plate and two side imperforate plates, the side plates being arranged and supported above the central plate in such a manner that a pocket will be formed and air admitted around and over the side edges of both the side and central plates. 13th. In a furnace, the combination with the side walls having overhanging ledges, of a fuel-support comprising a central imperforate plate and two side imperforate plates, forming a pocket, the outer side edges of the side plates extending under and below the said ledges, and their inner side edges over and above the respective side edges of the central plate. 14th. The combination of a furnace and a retarder-plate in the furnace, whereby the passage of the products of combustion is caused to be retarded and directed downward into the bed of incandescent fuel before passing to the exit-flue. 15th. The combination of a furnace, a casing or housing connected therewith, and an adjustable retarder-plate situated partly within said casing or housing and the furnace, substantially as specified. 16th. The combination with a furnace, of a casing or housing connected therewith, a retarder-plate situated partly within said casing or housing and the furnace, and means for vertically adjusting the retarder-plate, substantially as specified. 17th. The combination with a furnace and its exit flue, of a casing or housing opening into the furnace and communicating with the exit flue, and a retarder-plate vertically adjustable in said casing or housing and the furnace, substantially as specified. 18th. The combination with a furnace and its exit flue, of a casing or housing opening into the furnace and communicating with said exit flue, a retarder-plate having arms provided with guide-rods adapted to slide in said casing or housing, and means for vertically adjusting said retarder-plate, substantially as specified. 19th. The combination of a furnace and a fuel-support having a fuel pocket extending substantially the whole length of the combustion chamber, the said fuel-support and the said pocket being provided with laterally disposed openings for admitting air. 20th. The combination of a furnace having greater length than width and a correspondingly shaped fuel-support having a fuel pocket extending substantially the whole length of the combustion chamber, the said fuel-support and the said pocket being provided with laterally disposed openings for admitting air. 21st. The combination of a furnace, a fuel-support having a fuel pocket extending substantially the whole length of the combustion chamber, means for admitting air, and an automatic retarder-plate for directing the passage of the gases down into the bed of the fuel.

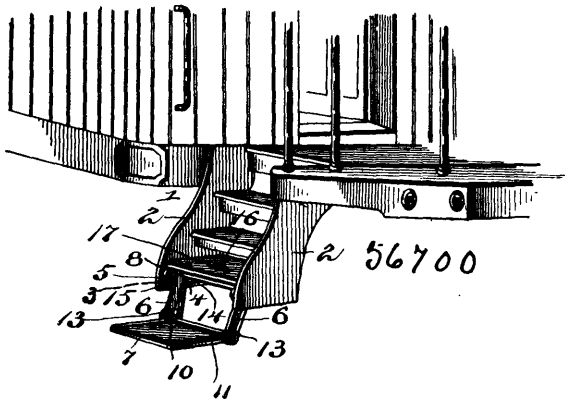
No. 56,699. Woven Carpet Lining. (*Garniture de tapis.*)



William Agal Mauran, Providence, Rhode Island, U.S.A., 17th July, 1897; 6 years. (Filed 21st June, 1897.)

Claim.—1st. A woven carpet lining having the filling formed of crumpled untwisted strips of paper, substantially as described. 2nd. A woven carpet lining having the filling formed of crumpled untwisted strips of paper and provided with longitudinally stitched strips, substantially as described.

No. 56,700. Car Step. (Marche de chars.)



William Pinkney Nye, Fazewell, Virginia, U.S.A., 19th July, 1897; 6 years. (Filed 21st June, 1897.)

Claim.—1st. In a device of the class described, the combination with a stationary step of a car or similar vehicle, of ways depending therefrom and located at opposite sides thereof, riser bars having their upper ends engaging and pivotally connected with the said ways, a folding step provided at its inner edge with ears, a pintle pivoting the said ears to the lower ends of the riser bars and forming an intervening space between it and the body portion of the step, the latter being adapted to be folded against the riser bars and arranged beneath the stationary step, suitable stops for supporting the step and the riser bars in their folded and operative positions, and a catch mounted on the stationary step and adapted to extend into the space between the pintle and the folding step, whereby the latter is locked in its folded position, substantially as and for the purpose described. 2nd. In a device of the class described, the combination of a stationary step provided with depending horizontal ways having a slot, a folding step, riser bars pivotally connected to the folding step and engaging the said ways and adapted to carry the folding step beneath the stationary step, and a pivoted L-shaped catch mounted in the said slot and arranged to engage the folding step to lock the same in its folded position, substantially as described. 3rd. In a device of the class described, the combination of a stationary step provided at its outer edge with a slot, ways depending from the stationary step and provided with longitudinal flanges forming stops and serving as supports, riser bars having longitudinal flanges forming stops and supports, provided at their upper ends with bosses engaging the said ways, a folding step provided with ears and adapted to engage the flanges of the riser bars, a horizontal pintle passing through the ears and the lower ends of the riser bars and hinging the step to the latter, and a pivoted L-shaped catch mounted in the slot of the stationary step and engaging the folding step between the same and the pintle, substantially as described. 4th. In a device of the class described, the combination of a stationary step, ways located beneath the step, riser bars engaging said ways, a folding step carried by the riser bars and adapted to be arranged beneath the stationary step, and a movable catch located beneath the upper face of the stationary step and depending therefrom in position to engage the folding step, whereby the latter is locked against outward movement in the said ways, substantially as described.

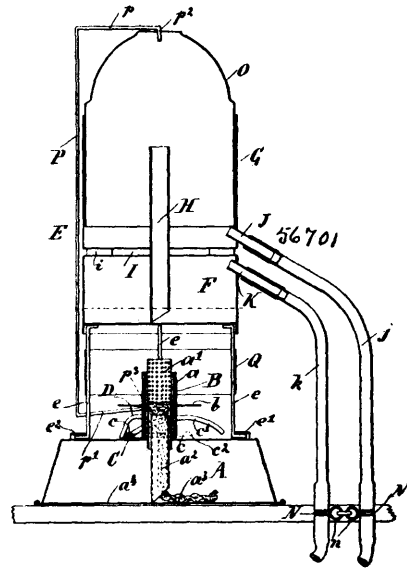
No. 56,701. Hot Water Appliance.

(Appareil pour application de l'eau chaude.)

Charles W. Spurr, jr., Brooklyn, New York, U.S.A., 19th July, 1897; 6 years. (Filed 21st June, 1897.)

Claim.—1st. A device for creating and conveying a continuous circulation of heated water for application to the body, through a hollow flexible tube, substantially as set forth. 2nd. A double-chambered water-containing vessel having respectively an outlet and an inlet, a coil of tubing connected with said outlet and inlet, and means whereby the application of heat to one chamber causes circulation of water through said coil and said chambers, substantially as set forth. 3rd. A hot water appliance consisting of a double-chambered water-containing vessel, having an air space between said chambers, an outlet for one of said chambers, and an inlet for the other of said chambers, said outlet and inlet communicating through a suitable medium, and a direct tubular connection between the said chambers, whereby water heated primarily in one of said chambers, is set in circulation, substantially as set forth. 4th. In a hot water appliance consisting of a double-chambered vessel and a coil of tubing connecting said chambers for the circulation of water, a lamp to heat one of said chambers, a burner tube upon said lamp and a sleeve surrounding said burner tube, with means whereby said sleeve may be raised to diminish the flame issuing from the burner tube, substantially as set forth. 5th. A lamp having a burner tube and wick sheath placed therein, an outer sheath enclosing the burner tube and having a radial flange, a

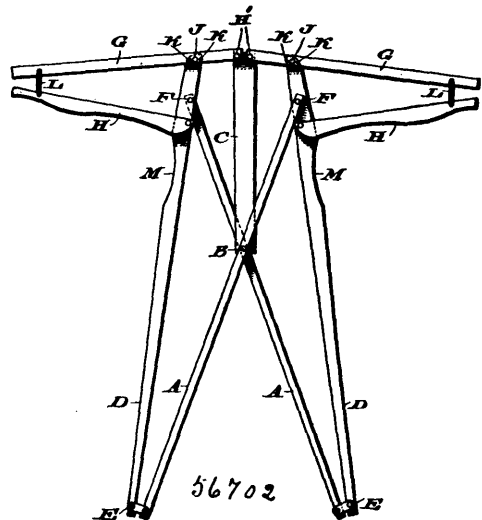
pivoted piece arranged to be moved against said flange to raise the said outer sheath, and a friction piece in juxtaposition to said pivotal



piece to hold it in a desired position, substantially as set forth. 6th. In a hot water appliance consisting of two water-containing chambers having a tubular connection, a burner tube arranged to direct a flame against one of said chambers, and a slidable sleeve around said burner tube; a telescoping dome in the other of said chambers, and a wire connecting said dome and slidable sleeve, whereby the upward movement of said dome, due to the heat expansion in its chamber, is communicated to the slidable sleeve, causing it to diminish the flame of the burner, substantially as set forth. 7th. In a hot water appliance, a coil of flexible tubing arranged and secured upon a sheet of flexible material, the opposite ends of said coil communicating with separate water chambers, substantially as set forth. 8th. In a hot water appliance, two water chambers having respectively an outlet nozzle and an inlet nozzle, a short length of tubing connecting with each of said nozzles, a doubled coil of tubing, and means for uniting the ends of said doubled coil with the aforesaid short lengths of tubing, said means comprising short pieces of stiff tubing each having a ring or the like for pinning or otherwise securing to an adjacent article, substantially as set forth.

No. 56,702. Garment Stretcher.

(Tendeur de vêtements.)

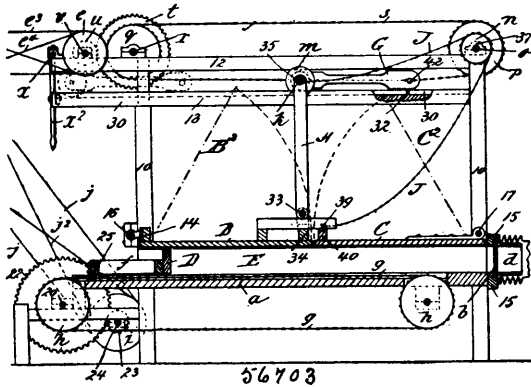


Laura Brown Cadmus, Sommerville, New Jersey, U.S.A., 19th July, 1897; 6 years. (Filed 22nd June, 1897.)

Claim.—1st. A garment stretcher consisting of the hanger C, the side pieces D, having the recesses M, the cross-bars A, pivoted together and to one end of said hanger C, the links E pivotally con-

nected with the lower ends of said bars A and said side bars D, the upper ends of said bars A being pivoted to said bars D near the tops of the same, the upper arm pieces G pivoted to said hanger and having an adjustable pivotal connection with said side pieces, the lower arm pieces H pivoted to said side pieces and the cords L connecting the outer ends of said arm pieces, said parts being combined, substantially as described. 2nd. A garment stretcher having a hanger with cross bar pivoted thereto, side pieces having pivotal connections with the ends of said cross bars, upper arm pieces pivoted to said hanger and having adjustable pivotal connections with said side pieces, lower arm pieces pivotally connected with said side pieces, and elastic straps connecting the outer ends of said arm pieces, said parts being combined, substantially as described. 3rd. A garment stretcher consisting of a hanger, cross bars pivoted to one end thereof, side bars pivotally attached to the ends of said cross bars, upper arm pieces pivoted to said hanger and side bars and lower arm pieces pivoted to said side bars, said arm pieces having connection near their outer ends.

No. 56,703. Machine for Stuffing Mattresses.
(Machine à rembourrer les matelas.)

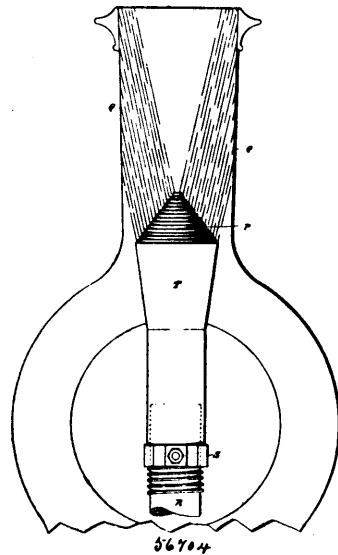


Amenzo Griffith, Springfield, Massachusetts, U.S.A., 19th July, 1897; 6 years. (Filed 23rd June, 1897.)

Claim.—1st. In a mattress stuffing machine, the combination with a stuffing-box having a hinged cover therefor, of a bar and supports on which the same is mounted to move, a flexible connection secured to said bar, and passed around a guiding device which is provided therefor, and connected to said cover, and means for imparting a forward and backward travelling movement to said bar, substantially as described. 2nd. In a mattress stuffing machine, the combination with a stuffing-box and two hinged cover sections therefor, of a bar and supports on which the same is mounted to move, wheels *p*, *q*, and chains of like flexible appliances running around said wheels and having a connection with said bar, means for imparting rotary movements to one of said wheels, a supporting and guiding wheel *n*, a chain or like flexible connection secured to said bar, running around said wheel *n* and connected to one of the cover sections, and the bar H pivotally sustained by the said movable bar and pivotally connected to the other cover section, substantially as described. 3rd. In a mattress stuffing machine, the combination with a stuffing-box having a hinged cover therefor, of a bar and supports on which the same is mounted to move, a flexible connection secured to said bar and passed around a guiding device therefor and connected to said cover, means for imparting a forward and backward travelling movement to said bar, a spout at the end of the stuffing-box, a gate separating the chamber in the box from said spout, and a bar D and means for imparting thereto its forward and backward movements in the stuffing-box, substantially as described. 4th. In a mattress stuffing machine, the combination with a stuffing-box and two hinged cover sections therefor, of the paired bars G, G, united by the cross rod and supports on which the said bars are mounted to move, wheels *p*, *q*, and chains or like flexible appliances running around said wheels and having connections with said bars, means for imparting rotary movements to one of said wheels, a supporting and guiding wheel *n*, a chain or like flexible connection connected to said bar running around said wheel *n* and connected to one of the cover sections and the bars H pivotally hung on said rod which is sustained by said movable bars, and having its lower ends pivotally connected to the other cover section, substantially as described. 5th. In a mattress stuffing machine, the combination with a stuffing-box having a hinged cover therefor, of a bar having the roller wheel, and upper and lower rails 12, 13, between which said bar and wheel runs, a flexible connection secured to said bar and passed around a guiding device therefor and connected to said cover, means for imparting a forward and backward travelling movement to said bar, a spout at the end of the stuffing-box, a gate separating the chamber in the box from said spout, and a bar D, and means for imparting thereto its forward and backward movements in the stuffing-box, substantially as described. 6th. In a mattress stuffing machine, the

combination with a stuffing-box and two hinged cover sections therefor and the rails 12, 13, the latter having the longitudinal groove, of the paired bars G, G, having the wheels *m*, *m*, united by the cross rod and the projections 32, wheels *p*, *q*, and chains or like flexible appliances running around said wheels and having a connection with said bar, means for imparting rotary movements to one of the said wheels, a supporting and guide wheel *n*, a chain or like flexible connection connected to said bar running around said wheel *n*, and connected to one of the cover sections, and the bars H, pivotally hung, and said rod, which is sustained by said movable bars, having their lower ends pivotally connected to the other cover section, the spout, gate and reciprocating ejector bar D, substantially as described. 7th. In a mattress stuffing machine, the combination with the stuffing-box, having the hinged cover sections and the horizontal guideways, of the bars G, G, movably mounted on said guideways, and having connections with the cover sections whereby, as they are moved, said sections will be opened and closed, wheels *p*, *q*, and chains or like flexible appliances running around them and connected to said bars G, and mechanism for imparting at pleasure forward or rearward rotary movement to said wheels *q*, substantially as and for the purposes set forth. 8th. In a mattress stuffing machine, the combination with the stuffing-box, having the hinged cover sections and the horizontal guideways, of the bars G, G, movably mounted on said guideways, and having connections with the cover sections whereby, as they are moved, said sections to be opened and closed, wheels *p*, *q*, *q*, and chains or like appliances running around them and connected to said bars G, a gear *t*, connected to move in unison with the wheels *q*, a shaft *v*, having two reversely driven pulleys, loose thereon, and a fixed pinion *u*, in mesh with gear wheel *t*, a clutch to place either of said reversely pulleys in driving connection with shaft *v*, and means for operating the clutch, substantially as described. 9th. In a mattress stuffing machine, in combination, the stuffing-box, having the spout *d*, and gate *b*, reciprocating bar D, and means for imparting its movement thereto, and the hinged cover sections B, D, the horizontal separated rails 12, 13, constituting guideways, the bars G, G, movable in said guideways, and united by the cross shaft *k*, the shafts *o* and *r*, the former having the sprocket-wheels *n* and *p*, and the latter having the sprocket wheels *q*, and the gear wheel *t*, the sprocket chains *s*, *s*, running around the sprocket-wheels *p*, *q*, and connected to said bars G, the chain J, connected to the shaft *k*, which is sustained by said bars, and running around sprocket-wheel *n*, and connected to one of the covers near its edge, the bars H, H, hung on said rod *k*, and pivoted to the other cover section shaft *v*, having pinion *u*, and reversely driven loose pulleys *c*, *c*², and having the clutch member *w*, the slide rod *x*, having the arm which engages clutch *w*, and the lever *x*², for operating said rod *x*, all substantially as described and for the purposes set forth.

No. 50,704. Locomotive. (Locomotive.)

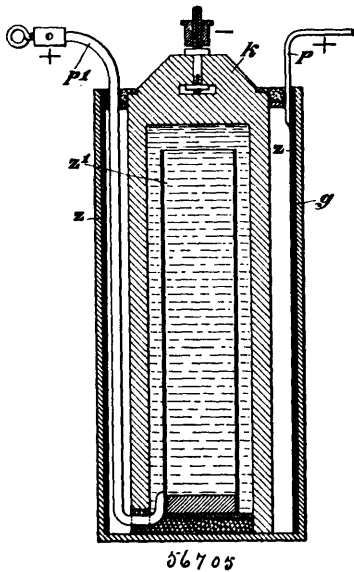


John Whittle, Boston, Lincolnshire, England, 19th July, 1897; 6 years. (Filed 23rd June, 1897.)

Claim.—1st. The herein described and illustrated improvement in or relating to boilers of locomotive type of engines, i.e. a furnace door of the kind mentioned with a deflecting plate suspended or hinged to swing in the opening thereof, said plate being adjustable as to height and to angle in the manner and for the purposes set forth. 2nd. The herein described and illustrated improvement in or relating to boilers of the locomotive type of engine i.e. a blast pipe nozzle provided with sets of holes arranged concentrically and

at an angle in concavo-convex shell on a cone shaped head of a blast pipe which is also adjustable as and by the means set forth for the purposes explained. 3rd. The improvements in or connected with boilers of the locomotive type of engine, the combination of the first and second part as hereinbefore set forth and shown *i.e.* the furnace door with its deflecting plate, and the concentrically holed nozzle of concavo-convex shape and adjustable on the blast pipe in the smoke stack, all as and for the purposes described.

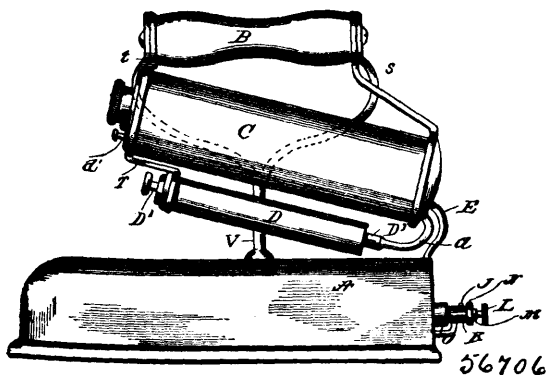
No. 56,705. Galvanic Element. (Pile galvanique.)



Robert Krayn, Berlin, and Karl Koënieg, Berlin, both in Prussia, Germany, 19th July, 1897; 6 years. (Filed 23rd June, 1897.)

Claim.—A dry cell consisting of a carbon-cylinder, filled with an induction fluid, used as a receiver for a wet cell, the outer mantle of the cylinder of the carbon-electrode, in combination with an electro-positive electrode, being used to form a dry cell, isolated from the inner wet cell, for the purpose of having within the compass of one ordinary dry cell two elements working independently from one another, and mutually depolarizing each other, substantially as described.

No. 56,706. Smoothing Iron. (Fer à repasser.)



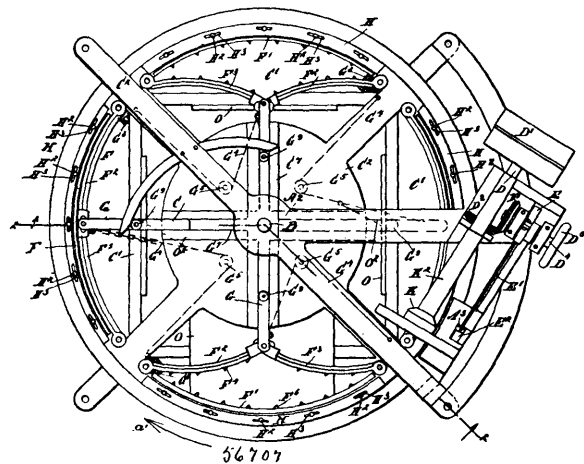
Willis Mitchell, Malden, Mass, U.S.A., 19th July, 1897; 6 years. (Filed 24th June, 1897.)

Claim.—1st. A burner having the form of a tube or elongated cylinder and provided with perforations in longitudinal series and with an inlet at one end in combination with a pipe for supplying inflammable fluid and means for discharging said fluid in a state of ignition into the said burner through the said inlet, the said pipe being wound on the said burner at the inlet end for only a part of the length of the series of perforations, to provide for automatic regulation of temperature, substantially as set forth. 2nd. In combination with the hollow body of a smoothing iron, a burner within the same, a gasoline coil wound on the said burner, a jet block supplied by the said coil and discharging into the said burner, a fixed hook or point arranged to close partly or wholly the discharge opening of the said jet block, means for adjusting the said jet block toward or from the said hook, a casing which encloses and guides the said jet block, and a coupling which connects the said casing to

the said burner, substantially as set forth. 3rd. In combination with the body of a heating implement, a burner arranged to act on the same, a gasoline coil wound on the said burner, a jet block supplied by the said coil and discharging into the said burner, a point arranged to close partly or wholly the discharge opening of the said jet block, means for adjusting one of the two latter parts toward or from the other, and a casing for the said point and jet block, substantially as set forth. 4th. A supply coil approximately one twenty-fourth of an inch in internal diameter, in combination with a perforated burner on which the said coil is wound for a part of the length of the series of perforations beginning at the inlet end, for the purpose set forth.

No. 56,707. Grain Bagging Machine.

(Machine à remplir des sacs de grain.)

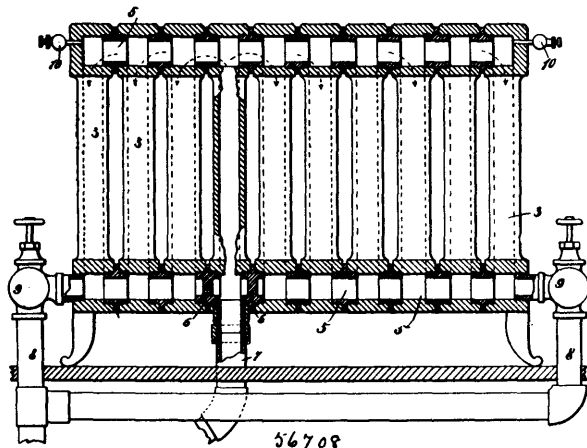


James William Henry and Alexander Gunn, both of Wallace, Idaho, U.S.A., 19th July, 1897; 6 years. (Filed 24th June, 1897.)

Claim.—1st. A grain bagging machine provided with an intermittently rotating bag carrier having holders, each comprising a fixed jaw, and movable jaws for engaging the mouth of the bag to hold the same open during the filling operation and to shut the same during the sewing and closing of the mouth of the bag, substantially as shown and described. 2nd. A grain bagging machine, provided with an intermittently rotating bag carrier having bag holders, each comprising a fixed jaw having movable teeth or pins for engaging the fabric of the bag, and movable jaws having fixed pins also for engaging the fabric of the bag at the mouth, the said jaws being arranged to hold the mouth of the bag open during the filling operation and to hold the same shut during the sewing and closing of the mouth of the bag, substantially as described. 3rd. A grain bagging machine provided with an intermittently rotating bag carrier having jaws for keeping the mouth of the bag closed, with the fabric extending above the jaws, and a sewing device having a segmental needle carrying the thread and adapted to pass through the fabric extending above the said jaws, substantially as shown and described. 4th. A grain bagging machine provided with an intermittently rotating bag carrier, sets of jaws for holding the bags on the said carrier, dumping boards on the said carrier, and means for opening a set of the said jaws and actuating the corresponding dumping board, substantially as shown and described. 5th. A grain bagging machine provided with an intermittently rotating bag carrier, and dumping boards trunnioned on the said carrier and adapted to form a back rest for the bags, and arranged to be tilted to throw the filled bag off the carrier, substantially as shown and described. 6th. A grain bagging machine provided with a segmental needle made tubular at its rear end to receive a coil of sewing thread, substantially as shown and described. 7th. A grain bagging machine provided with a sewing device comprising a fixed circular race, a segmental needle mounted to travel in the said race and formed at its rear with a chamber for carrying a coil of thread, and a hook held on the said race and adapted to be engaged by the loop from the said thread, to cause the needle to pass through the loop, substantially as shown and described. 8th. A grain bagging device provided with a sewing needle made segmental and having its rear end tubular for the reception of a coil of sewing thread, and a tension device in the extreme rear end of the said needle for the thread to pass through, substantially as shown and described. 9th. A grain bagging device provided with a segmental sewing needle having its read end made tubular, and formed with a hinged door for opening the tubular part to place the sewing thread therein, substantially as shown and described. 10th. A sewing thread doubled up and formed into a coil, with the middle loop portion extending through the coil, substantially as shown and described. 11th. A grain bagging machine provided with a sewing device having a segmental needle, and a sewing thread carried by said needle and doubled up and formed into a coil, substantially as shown and described. 12th. A grain bagging ma-

chine provided with a sewing device, comprising a fixed disc formed with an annular race, a needle made segmental and mounted to travel in the said race and fitted to pass through a recess in the disc, and a wheel mounted to rotate, and provided with radial grooves engaging blocks adapted to engage openings in the said needle, to drive the latter around in the race, substantially as shown and described. 13th. A grain bagging machine provided with a sewing device, comprising a fixed disc formed with an annular race, a needle made segmental and mounted to travel in the said race and fitted to pass through a recess in the disc, a wheel mounted to rotate and provided with radial grooves engaging blocks adapted to engage openings in the said needle, to drive the latter around in the race, the said blocks being arranged to engage a cam groove in the said disc, to move the blocks out of the said recess in the disc when nearing the same, substantially as shown and described. 14th. A grain bagging machine provided with a segmental needle, means for driving the same around in a circular race, and means for supporting the thread, on the said needle, as set forth. 15th. A grain bagging machine provided with a bag carrier having bag holders and mounted to rotate, a shaft having a rotary motion, an eccentric held on the said shaft, a reciprocating block connected with the eccentric rod of the said eccentric, and a bell crank lever engaged by the said block, and provided with a tooth adapted to engage a gear wheel on the said bag carrier so as to rotate the latter, substantially as shown and described. 16th. A grain bagging machine provided with a bag carrier, having bag holders each comprising a segmental fixed jaw, segmental pivoted jaws, a spring pressed bar fitted to slide radially and connected with said pivoted jaws, and means for imparting a sliding motion to the said bar in an inward direction to open the said pivoted jaws, as set forth. 17th. A grain bagging machine provided with a revoluble bag carrier provided with holders, each comprising a segmental fixed jaw, two pivoted jaws, a spring pressed bar pivotally connected with the said pivoted jaws, and a treadle under the control of the operator and connected with the said bar to permit the operator to open the said pivoted jaws, substantially as shown and described. 18th. A grain bagging machine provided with a bag holder having a fixed jaw, pins extending through openings in the said jaw, a block fitted to slide and carrying the said pins, a segment having pins engaging angular recesses or grooves on the said block, and means for imparting a sliding motion to the said segment, as set forth.

No. 56,708. Radiator. (Radiateur.)



Augustus Eichhorn, Orange, New Jersey, U.S.A., 19th July, 1897; 6 years. (Filed 24th June, 1897.)

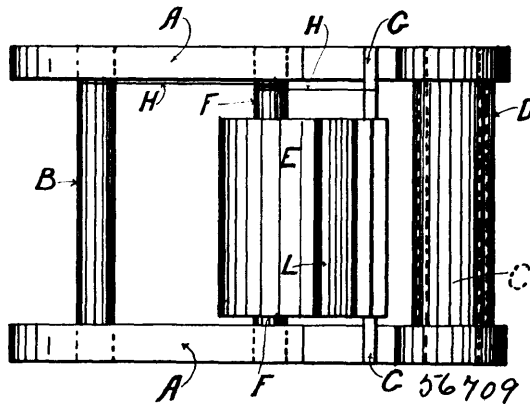
Claim.—A hot water radiator having a series of sections all having intercommunication at their upper ends and all but a single intermediate section having intercommunication at their lower ends, said intermediate section being closed from communication with the lower ends of the sections adjacent to the said intermediate section and having at its lower portion an inlet orifice receiving the hot water, and the said intermediate section leading the hot water upward throughout the interior of the intermediate section, and discharging the hot water laterally on each side and into the upper ends of the sections contiguous to the said intermediate section, the lower portion of each end section having an outlet orifice, independently operated valves respectively controlling the outlet orifices, the upper ends of each end section having an air vent, and valves respectively controlling the air vents, substantially as described.

No. 56,709. Strap Buckle. (Boucle de courroies.)

Charles Lancelot Garland and Octavius Plater Clayton, assignees of William Montagu Coward, all of Sydney, New South Wales, 19th July, 1897; 6 years. (Filed 23rd June, 1897.)

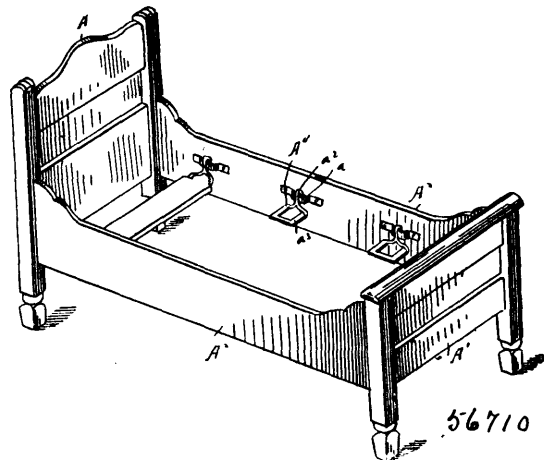
Claim.—1st. In strap buckles a gripping cam provided with grooves or small projecting teeth and so arranged that it will automatically grip and hold the strap, substantially as herein described,

explained and illustrated in the drawings. 2nd. In combination, the buckle sides A A, the bars B and C, loose sleeve or pulley D,



cam E being provided with the lugs G G, substantially as herein described, explained and illustrated in the drawings. 3rd. In combination, the buckle frame A A, bars B and C, loose sleeve or pulley D, the cam E either cylindrical or segmental, a downward spring to give the cam a constant inclination towards the loose sleeve or pulley D, and lugs G, to govern the movement of the said cam, substantially as herein described, explained and illustrated in the drawings. 4th. The combination and arrangement of the various parts herein described, explained and illustrated together forming the improved buckle for straps and other purposes, substantially as and for the purposes set forth.

No. 56,710. Bedstead. (Bois de lit.)



Melbert Dumas, Ripon, Charles J. Robley and Fred Reisner, both of Milwaukee, all in Wisconsin, U.S.A., 19th July, 1897; 6 years. (Filed 29th May, 1897.)

Claim.—1st. A bedstead, comprising side rails having on their inner sides metal strips provided with sockets a open at top and bottom, and adjustable stirrup hangers having hook portions to engage said sockets, substantially as described. 2nd. A bedstead comprising side rails longitudinally channelled on their inner side, metal strips secured in said channels, the said strips being bent outward at intervals to form sockets open at the top and bottom, and stirrup-hangers having hook portions to engage in said sockets, substantially as specified.

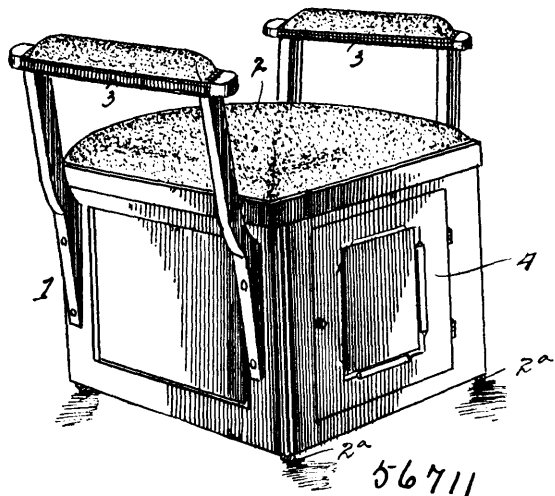
No. 56,711. Portable Commode and Chair.

(Chaise percée.)

John Honeywell, Greenville, Michigan, U.S.A., 19th July, 1897; 6 years. (Filed 25th May, 1897.)

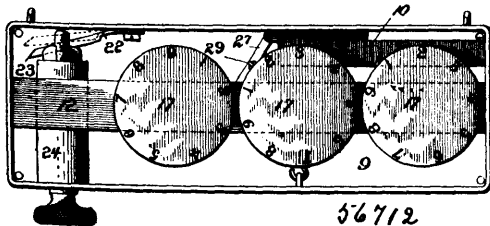
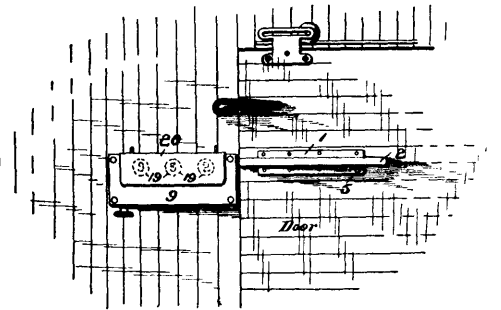
Claim.—1st. A commode and chair comprising a box or casing having a hinged top forming a seat when in a horizontal position, and adapted to be swung upward to form a back for the commode, and upper and lower commode seats arranged horizontally within the box for use in such position, the upper seat being hinged, and adapted to be swung upward out of the way when the lower seat is used and the lower seat forming a receptacle-support when the upper one is used, substantially as described. 3rd. A commode and chair comprising a box or casing provided at its front with a door, and having a hinged top forming a seat, and adapted to be swung upward to form a back for the commode, upper and lower commode seats, the upper one being hinged and adapted to be swung out of

the way of the lower one, and a lid hinged to the lower commode-seat and forming a receptacle support, substantially as described.



3rd. In a device of the class described, the combination of a box or casing having a hinged top forming a seat when in a horizontal position, and adapted to be swung upward to form a back for the commode, a commode-seat, a guide-plate arranged on the inner face of one side of the box or casing, and having its opposite edges bent inward over it to form ways, a pivot passing centrally through the guide-plate and securing the same to the box or casing, a flat sliding bar pivoted at its upper end to the hinged top, arranged flat against the guide-plate in the ways thereof and provided at its lower end with a stop, said bar being adapted to slide freely in the ways of the guide-plate, and the latter being capable of free pivotal movement, substantially as described.

No. 56,712. Indicator Lock. (Serrure d'indicateur.)



Frank Aldrich, Detroit, Michigan, U.S.A., 19th July, 1897 ; 6 years. (Filed 25th June, 1897.)

Claim.—1st. In a lock for cars, a sliding locking bolt provided with teeth, combined with a series of spindles, pinions on said spindles engaged by the toothed bolt, and indicating disks carried by the spindles, substantially as and for the purpose set forth. 2nd. In a lock for cars, a sliding bolt provided with teeth and having a locking recess combined with a casing, a series of spindles having their bearing in the casing, pinions on the spindles adapted to be engaged by teeth on the bolt, a dog within the casing to engage the locking recess in the bolt, indicating disks carried by the spindles, and a device to disengage the dog from the locking recess, substantially as and for the purpose set forth. 3rd. In a lock for cars, a casing, spindles journaled in the casing, and pinions and indicating disks carried by the spindles, combined with a toothed sliding bolt the teeth of which operate the pinions, a toothed wheel on one of the spindles, and a spring actuated arm released by the withdrawal of a bolt to strike said toothed wheel and rotate it, substantially as

and for the purpose set forth. 4th. In a lock for cars, a sliding bolt provided with teeth and bearing shoulders combined with a casing having openings at its front plate, a guideway in said casing having supports for the shoulders on the bolt, a series of spindles having their bearings in the casing, pinions carried by the spindles to be engaged by the teeth on the bolt, indicating disks carried by said spindles and provided with numerals arranged on their faces to be visible through the opening in the casing, and a protecting plate hinged to the casing, covering the openings in the front plate of the casing, substantially as and for the purpose set forth. 5th. In a lock for cars, a sliding bolt provided with teeth, a locking recess, and bearing shoulders combined with a casing having openings in its front plate, a guideway in said casing having supports for the shoulders on the bolt, a series of spindles journaled within the casing, pinions carried by the spindles to be engaged by the teeth on the bolt, indicating disks carried by said spindles and to rotate in the rear of the openings in the front plate of the casing, and a spring actuated dog secured at one end of the casing and its free end engaging the locking recess in the bolt when the latter has reached the limit of its inward movement, substantially as and for the purpose set forth.

No. 56,713. Adjustable Brace for Windmill Towers. (Support pour moulins à vent.)

Fig. 1.

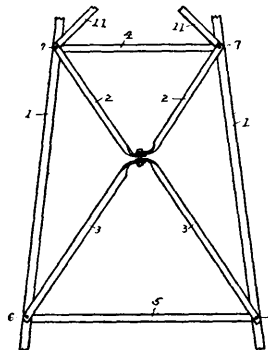
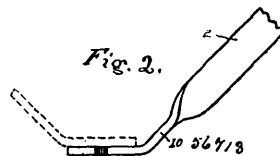


Fig. 2.



John W. Park, Kenallville, Indiana, U.S.A., 19th July, 1897 ; 6 years. (Filed 24th June, 1897.)

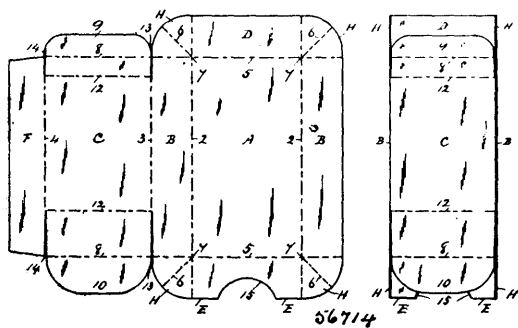
Claim.—1st. The combination in a metallic tower, of the upright posts rigidly connected by proper brace girts, as shown, the adjustable braces arranged on the angularly adjacent sides of said metallic tower, and comprising two pairs of rigid diagonal brace sections having their outer ends secured to the tower-uprights, and having the inner and overlapping ends of each of said pairs adjustably connected and secured midway the said uprights, by a single holding-bolt, and the screw-threaded bolt by which the meeting ends of the said sections are secured. 2nd. In a metallic tower, the combination of the posts 1, the horizontal brace girts 4 and 5 mounted thereon as shown ; an adjustable four-part brace comprising the diagonally arranged sections 2 and 3, mounted as shown, upon the tower posts, and having their inner and meeting ends adjustably connected by a proper holding bolt midway of the said posts, whereby the said diagonal brace sections are tightened and secured by the adjustment of a single bolt, all substantially as described. 3rd. In an adjustable brace for windmill towers, the brace sections 2 adapted to be pivotally mounted at its outer end upon the tower posts as shown, and having its inner end twisted at right angles to the body thereof, the extremity of said twisted portion being bent and perforated for the purpose specified, and adapted to form a vertically adjustable connection with the remaining brace sections, by means of an adjustable bolt, all substantially as described.

No. 56,714. Folding Box. (Boîte pliante.)

Albert J. Vance, Chicago, Illinois, U.S.A., 19th July, 1897 ; 6 years. (Filed 24th June, 1897.)

Claim.—1st. A folding box of the character described consisting of one piece of material having lines of impressure for folding purposes, which when folded, forms a complete and enclosed box with locked ends as described. 2nd. A box or case of the character described consisting of a single piece of material having impressure lines to allow the sides and ends to turn up, said sides having

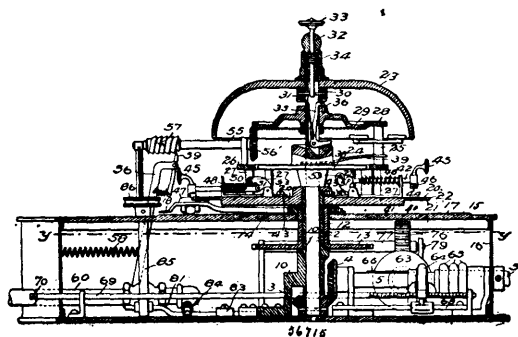
rounded corners with oblique lines to the points of intersection with said through lines, to allow the folding in of said corners, a de-



pressed line 3, to allow the cover to fold over, the outer flange of the cover capable of folding against the inner side of the box by means of its impressure line 4, and attached to said inner side, the impressure lines 8 and 12, and the end severances of the cover and its flange to allow of the insertion of its rounded tongues between the ends of the box and the folded corners thereof, to lock the box, as described. 3rd. A box or case of light material capable of being folded to its shape from a single piece of material of the pattern set forth, by means of impressure lines to allow the sides, the cover, the folded corners and the ends to fold, said cover having a flange capable of folding against the inner side of the box by means of its impressure lines, the end tongues of the cover having impressure lines and end severances to enable the rounded tongues to enter between the folded corners and the ends of the box, for enclosing and fastening the same, as described. 4th. A single piece of material capable of being folded into an enclosed box and fastened, indented or impressure lines in said material to represent and allow the turn of each side, cover and ends, each corner being rounded and having impressure oblique lines to intersect at 7, for the folding in of the corners, the cover having transverse impressure lines, a flange on one side of cover having impressure lines for folding and securing to inner side of box, and said flange, to the impressure lines 12, to allow for the proper insertion of said tongues between the folded in corners and the ends of the box, said front end having a scallop 13, as described.

No. 56,715. Engineer's Alarm.

(Avertisseur pour ingénieurs.)



Harry De Wallace, St. Paul, Minnesota, U.S.A., 19th July, 1897; 6 years. (Filed 24th June, 1897.)

Claim.—1st. The combination, in a train alarm or indicator, to be operated by the movement of the locomotive or car carrying the same, of a dial or scale, with a hand, and a mechanical signal device adapted to automatically operate at a predetermined moment, and dependent for its operation upon the relative positions of said hand and dial or scale. 2nd. The combination, in a train alarm or indicator, automatically actuated by the movement of the train or other carrier, of a dial or scale, with a hand, and a mechanical signal device or other mechanism mechanically connected with said hand, to be tripped thereby. 3rd. The combination, in a train alarm or indicator, of a dial or scale, said dial or scale graduated to indicate miles, and having other marks including groups of graduations, a suitable signal or like mechanism, and a schedule bearing the names of the stations in order of their distance from the starting point and also having marks opposite the station names corresponding to the marks upon the dial or scale and indicating the group in which the corresponding distance will be found upon the dial or scale. 4th. The combination with a series of dogs adapted to be set, of means for automatically returning the dogs when released from the set positions, a part to release said dogs in order of their positions

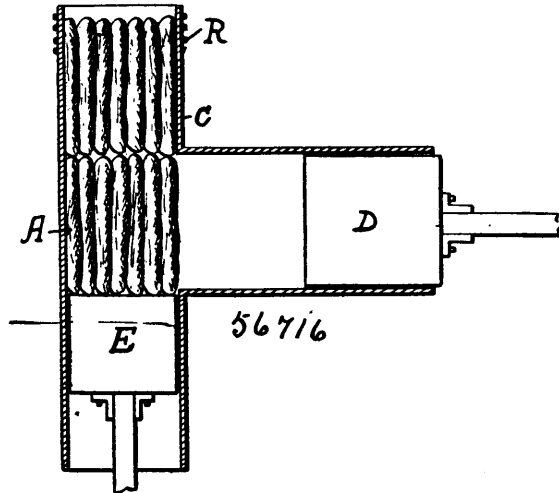
when set, and a signal device operative upon the release and automatic return of any dog, substantially as described. 5th. The combination, with the dial or scale, of a series of dogs arranged thereon and each capable of adjustment to any one of a limited number of points upon the dial or scale, a hand to engage and release said dogs, means for returning the dogs when released, and a signal dependent for its operation upon the return of said dogs, or any one thereof, substantially as described. 6th. The combination, with a suitable dial or scale, and a hand, of a series of movable dogs or triggers, returning springs therefor, said dogs adapted to be released by the relative movement of said dial or scale and the hand, a movable part common to all the dogs to be operated by the return of either of the same, and a device dependent for its operation upon the movement of said common part, substantially as described. 7th. The combination, of a series of dogs adapted to be set, with means for automatically returning said dogs when released, means for releasing the dogs in the order of their positions, a suitable shaft, means for driving the same, a clutch, a common part to be actuated by the return of either of said dogs, and adapted to operate said clutch, and a part dependent upon said clutch for its operation, substantially as described. 8th. The combination, with a dog adapted to be set in a given position, of means for releasing and returning said dog, a suitable shaft, a wheel loosely journaled thereon, a clutch part movable upon said shaft to engage said wheel with the shaft and adapted to be operated by the return of said dog, and a signal operating device to be operated by said wheel, substantially as described. 9th. The combination, with a suitable shaft, of a part longitudinally movable thereon, a clutch part, a wheel provided upon said shaft to be engaged by said clutch part when said clutch is freed by the operation of said longitudinally movable part, means for disengaging the clutch part, a signal device to be connected with said wheel, or equivalent part, and a series of dogs, either one of which is adapted to operate said longitudinally movable part, and means for actuating said dogs substantially as described. 10th. The combination, with two dials or scales, of a hand, dogs to be set upon one of the dials or scales, to indicate positions upon either dial or scale, and adapted to be disengaged by said hand, a signal device, and said dogs adapted to cause the operation of said signal device when either of the dogs is released, substantially as described. 11th. The combination, in a train or engineer alarm, of a dial or scale, with a part or dog to be set in a given position with respect to said dial or scale, moving means for releasing and accomplishing the return of said part or dog, and a signal device dependent for its operation upon the return of said dog, substantially as described. 12th. The combination, with the dial or scale, of a hand to travel thereon, a signal device, and dogs or triggers to be actuated or released by said hand or like moving part, and themselves adapted, when released, to actuate or release said signal device, substantially as described. 13th. The combination, with the dial or scale of dogs or triggers arranged to be set thereon, a hand adapted to indicate position, and to release the dogs or triggers which have been set upon said dial or scale, and a signal operating device or mechanism actuated by or dependent upon the operation of said dogs or triggers when released, substantially as described. 14th. The combination, with the dial or scale, of a hand, a series of spring dogs or triggers adapted to be moved and set on said dial or scale and to be disengaged therefrom by said hand or like part, and a bell ringing device or mechanism dependent for its operation upon the action of said dogs or triggers when disengaged from said dial or scale by said hand, substantially as described. 15th. The combination, with a stationary dial or scale, of a hand, means for rotating the hand, at a speed proportionate with that of the locomotive or car, spring dogs provided upon said dial or scale and adapted to be set thereon in position to be engaged by said hand, a bell, and a hammer mechanism whereby the liberation of a dog from its set position the bell is sounded, substantially as described. 16th. The combination, with a dial or scale, of a hand or pointer, a series of spring dogs arranged to be set upon said dial or scale, a bell or like signal, and the signal operating mechanism adapted to be actuated by the return of any one of said dogs from its set position, substantially as described. 17th. The combination, with the dial or scale, of a hand, or pointer, a series of longitudinally movable dogs or triggers arranged upon said dial or scale and adapted to be set thereon and to be released by engagement with said hand or pointer, said dogs or triggers being also pivoted or swivelled upon said dial or scale to permit a given latitude of adjustment in setting the same, and a signal mechanism adapted to be actuated by the release of either dog or trigger, substantially as described. 18th. The combination, with the dial or scale, of a hand, or pointer, a series of longitudinally movable dogs or triggers arranged upon said dial or scale and adapted to be set thereon and to be released by engagement with said hand or pointer, said dogs or triggers being also pivoted or swivelled upon said dial or scale to permit a given latitude of adjustment in setting the same, a signal device, and a signal operating mechanism common to all of said dogs or triggers and adapted to be actuated by either one thereof, substantially as described. 19th. The combination, with a dial or scale, of a revoluble hand, means for driving the same, a series of dogs or triggers provided upon said dial or scale and to be set thereon, a bell, means for supporting the same, a shaft, means for driving said shaft, a bell ringing device, and means actuated by said dogs or triggers to operatively connect said bell ringing device with

said shaft, substantially as described. 20th. In a device of the class described, the combination, with a dial or scale, of triggers or dogs set thereon, a signal device dependent for its operation upon the release of said dogs, a schedule bearing the name of the stations in order of their distance from the starting point, said dial or scale being graduated or marked, and said schedule having marks corresponding with them upon said dial or scale, the marks being placed opposite respective station names, to facilitate the setting of the dogs upon the dial or scale, substantially as described. 21st. The combination, with a suitable base, of a dial or scale mounted thereon, a hand or pointer, a series of dogs to be set upon said dial, a signal device to be actuated or controlled by the return of said dogs, said dial or scale being marked or graduated, and a schedule provided upon said base and graduated to correspond with said dial or scale, substantially as described. 22nd. The combination, with a dial or scale, of a hand or pointer, a series of dogs to be set upon said dial or scale, and adapted to be released by said hand, a signal device dependent for its operation upon the operation of said dogs or any one of the same, said dial or scale being marked and graduated, and a schedule card bearing the names of the stations in order of their distances from the starting point, marked and graduated to correspond with said dial or scale, and said card having upon its opposite side the reverse order of the stations with the distances marked in proportion to their distance from the starting point on the return trip, whereby the hand may have the same direction of movement upon the dial or scale during both the out and the return trips or runs, substantially as described. 23rd. The combination, with a suitable base, of a large and small dial or scale thereon, a suitable hand or pointer, each of said dials or scales being divided into a given number of sections, and also into groups or sections, the sections or graduations being suitably marked, and the groups or sections being indicated by letters or combinations of letters, and a schedule bearing the name of the stations in order, and figures and letters indicating the dial or scale positions in groups, and dogs provided upon one of said dials or scales to be released by said hand, and a signal device actuated or controlled by the action of said dogs, or either of them, substantially as described. 24th. The combination, with a suitable dial or scale, of a suitable hand or pointer, a series of longitudinally movable spring actuated dogs provided upon said dial or scale and adapted to be set thereon, springs to return said dogs, and a signal actuated device to be engaged by said dogs when released and freed from engagement therewith by the return or final movement of the dogs, substantially as described. 25th. The combination, with a dial or scale, and a suitable hand or pointer, of a series of spring dogs provided upon said dial or scale, a shaft and bell suitably supported, a hammer device, a gear to operate the same, said gear being journaled upon said shaft, a clutch carried by said shaft, a trigger to hold said clutch out of engagement with said gear or a clutch part thereof, and a device longitudinally movable upon said shaft to be engaged by said dogs and to trip the clutch trigger, whereby said gear is connected with said shaft to rotate therewith and operate upon said hammer device, substantially as described. 26th. In a train alarm or indicator, the combination, with a suitable dial or scale and a hand, of a suitable signal device, means for driving either the hand or the dial, and an adjustable reduction gear interposed between said means and the hand or dial, substantially as described. 27th. The combination, in a train alarm or indicator, of the dial or scale and the hand, with means for driving one or the other of the same, and a friction reduction gear interposed between the driving means and the hand or dial or scale, substantially as described. 28th. The combination, of a suitable dial or scale, with a hand, a driving shaft, and a shifting friction gear arranged between said shaft and said hand, and whereby the hand may be driven in either direction, substantially as described. 29th. The combination, in a train alarm or like device, of a dial or scale with a hand, one or the other thereof being movable, a shaft for driving the same, a friction disc, a friction pulley to engage said friction disc and movable upon said shaft, means for fixing the position thereof, and a connection between said friction disc and said hand or said dial, substantially as described. 30th. The combination, with the dial or scale and the hand, of the hand wheel, means for driving the same, and means for disengaging the hand wheel to permit the adjustment of the hand, substantially as described. 31st. The combination, with the dial or scale, and a hand, of a hand wheel or gear, a reduction gear engaged therewith, and means for disengaging said reduction gear to permit the free adjustment of the hand, substantially as described. 32nd. The combination, with the dial or scale, of the hand, a driving shaft, a worm shaft for driving the hand or the dial, and a reduction gear interposed between said driving shaft and said worm shaft, substantially as described. 33rd. The combination, with the dial or scale, of the hand, one or the other being movable, the gear wheel connected therewith, the worm to mesh with said gear, means for driving said worm, and means for moving said worm out of engagement with said gear, substantially as described. 34th. The combination, with the dial or scale, and the hand, of the hand wheel or gear, the worm engaging the same, the driving shaft, the friction wheel, a friction pulley arranged upon said driving shaft to drive the friction wheel, and means connecting said worm and said friction wheel, substantially as described. 35th. In a train alarm, the combination with the hand and the dial, of the driving shaft, provided with the friction wheel, the friction

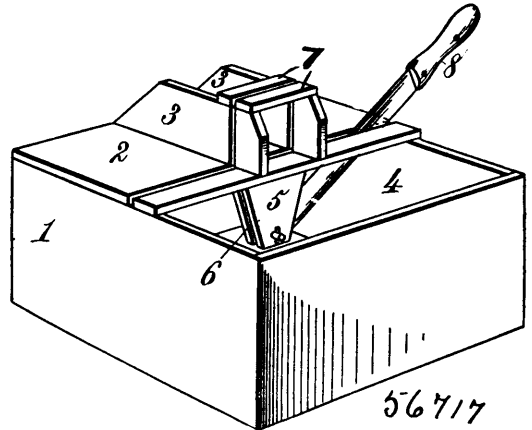
disc to engage therewith, the pressure device provided in connection with said friction disc, and suitable means connecting said friction disc with the hand or the dial to move the same, substantially as described. 36th. The combination, with the driving shaft, of the friction wheel arranged thereon, the yoke for shifting said friction wheel, means for moving the same, an indicator provided in connection therewith, the friction disc and the hand or dial to be driven thereby, substantially as described. 37th. The combination, with the dial and the hand of a train alarm, of the hand-wheel having V-shaped teeth, the V-threaded worm to mesh therewith, means for driving said worm, and means for engaging and disengaging said worm from said hand-wheel, substantially as described. 38th. In a train alarm, the combination, with the dial and the hand, of a second dial, a central support therefor, means for driving said hand about said support, a shaft having its bearing in said support, and a signal or like mechanism connected with said shaft, substantially as described. 39th. The combination, with the driving shaft, of the shaft 2, the means connecting said shafts, the bearing for the shaft 2, the dial secured to said bearing and the hand and hand wheel adapted to rotate about said bearing, substantially as described. 40th. In a train alarm or indicator, the combination with a signal operating shaft 2, of the disc 38 movable thereon and adapted to release the signal mechanism to be operated by said shaft, and means for actuating said disc at predetermined moments, substantially as described. 41st. In a train alarm or indicator, the combination, with a clutch disc 36, of triggers or dogs comprising spring actuated levers to engage and move said disc, substantially as described. 42nd. The combination, with a clutch disc 36, and a mechanism rendered operative by the action thereof, of a trigger or dog, comprising a lever adapted to swing into and out of contact with the face of said disc, and means for actuating said lever at a predetermined moment, substantially as described. 43rd. The combination, with the dial, of the dog or trigger, comprising a spring rod having at one end a pivoted lever and at the other a head or cross portion to be engaged with said disc, and a clutch plate or disc to be operated by said lever, substantially as described. 44th. The combination, with the dial and the hand, of a series of dogs or triggers arranged upon said dial, each of said dogs comprising a spring rod, a pivoted lever, to which the inner end of said rod is pivoted, and a cross or T-head on the outer end of said rod, to be engaged with said disc, and to be disengaged therefrom by said hand, and a clutch disc to be actuated by either of said levers and freed therefrom by the final movement thereof, substantially as described. 45th. The dog or trigger, for actuating the clutch or like part of the train alarm or indicator, and comprising a pivoted or swivelled plate, a lever pivoted thereon, a spring rod intermediately pivoted upon said lever, and means for drawing up and securing said rod, substantially as described. 46th. The combination with the dial, of a series of triggers arranged thereon, a pivoted plate for each trigger, whereby the trigger is allowed a certain latitude of movement or adjustment upon said dial or scale, said triggers having a pivoted lever at its inner end and a clutch disc or like part to be first actuated and then freed by the inward throw of either of said levers, substantially as described. 47th. The combination, with the dial, of the shaft 2, the bell, the gear upon said shaft to be engaged therewith, the hammers to be operated by said gear, the ring supporting said hammers, the narrow legs 27 supporting said ring, and the swivel triggers arranged upon said dial, and whereby said gear is connected with said shaft, substantially as described. 48th. In a train alarm, the combination, with a signal to operate automatically at a given instant, of the air-brake valve and means for operating same automatically, after the lapse of a given time from the operation of said signal, substantially as described. 49th. In a train alarm, the combination, with a part to be operated at a predetermined instant, of a mechanism then thrown into operation, means for stopping said operation, an air-brake device and means whereby the same is automatically operated, if the operation of said mechanism is not stopped within a certain time or space, substantially as described. 50th. The combination, in a train alarm or indicator, of a series of triggers to be set and to be released at predetermined moments, with a signal device common to all of said triggers, and adapted to be operated upon the release of any one thereof, an air-brake device and means for automatically operating the same, in connection with the signal, substantially as described. 51st. The combination, in a train alarm, or indicator, of a series of triggers to be set and to be released at predetermined moments, with a signal device common to all of said triggers, and adapted to be operated upon the release of any one thereof, and to operate continuously until stopped, and an air-brake mechanism which will operate automatically, unless said signal or alarm is stopped within a certain time or space, substantially as described. 52nd. The combination, in a train alarm or indicator, of a continuously rotating shaft, a part to be engaged therewith at a predetermined instant, and adapted to operate a signal and set the air-brakes, substantially as described. 53rd. In a train alarm or indicator, the combination, with a part to be operated at a predetermined moment, with an air-brake device normally held by said part, but freed therefrom by the operation thereof, substantially as described. 54th. The combination, in a train alarm or indicator, of a worm, with an air valve and an air valve lever, normally held in engagement with said worm, but freed therefrom by the rotation of the worm, to operate said valve, substantially as described. 55th. The combination, with the worm 57, of the lever provided with a pawl to engage said worm during the

forward movement of the lever, but to be disengaged therefrom during the return of the lever, and an air-brake valve, operated by said lever, substantially as described. 56th. In a train alarm, the combination, with a continuously operative mechanism, adapted to actuate a signal at predetermined instants, and the driving shaft thereof, of a flexible bolt connecting said shaft with a suitable driving wheel, such as the truck or driving wheel of a locomotive or car, substantially as described.

No. 56,716. Baling Press. (Presse à balots.)



pivoted between the lower ends of the parts of the bracket and extending upward through a slot running from end to end of the



platform and coinciding with a slot passing entirely through the three walls of the feed-box, whereby said knife has a range of effective movement equal to the length of the platform and has support on both sides throughout said movement, those portions of its edges which act on material passed through the feed-box, being supported on both sides immediately above and below the material operated upon the box, being open to its full capacity, substantially as described.

No. 56,718. Lubricating Axle. (Boite à graisse.)

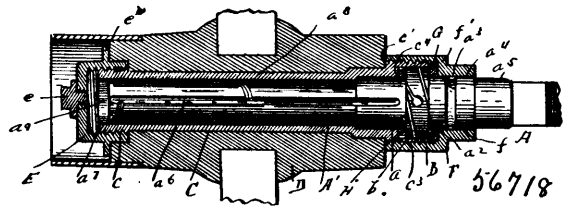
Peter Kells Dederick, Londonville, New York, U.S.A., 19th July, 1897; 6 years. (Filed 24th June, 1897.)

Claim.—1st. The combination of a press case, having a feed passage for the entrance of the material to be baled, and a discharge passage, at an angle to the first named passage for the ejecting of the formed bale, of means for forcing the material into said feed passage and forming the bale and for ejecting the formed bales transversely through the discharge passage, substantially as described. 2nd. The combination of a press case, having passages intersecting each other at substantially right angles, with means for pressing the material and forming bales in said passages alternately, whereby the finished bales are ejected from the intersection of the passages transversely, substantially as described. 3rd. The combination of a press case having passages intersecting each other at substantially right angles, with means for alternately forcing the material to be baled into one passage to form a bale at the intersection of the passage and for subsequently forcing material into the other passage to form a new bale against the one already formed, and to, at the same time, eject the last previously formed bale, substantially as described. 4th. The combination of a press case, having a feed passage for the entrance of the material to be baled, and a discharge passage at an angle to the first named passage for the ejection of the bale, of means for forcing the materials into said feed passages to form the bale and for ejecting the form d bale transversely through the discharge passage into bale confining means, such as bands, within which the discharge bales are ejected and expand so as to be held thereby, substantially as described. 5th. In combination with a press case having passages intersecting each other at substantially right angles, with means for pressing the material to form bales in said passages alternately, and movable partitions whereby the finished bales are divided, and ejected from the intersection of the passages transversely, substantially as described. 6th. In combination with a press case having passages intersecting each other at substantially right angles, with means for pressing the material to form bales in said passages alternately and movable partitions and retaining devices whereby the partitions dividing the bales are retained in position to close the intersecting passages alternately, to facilitate the transverse displacement of the bales, substantially as described.

No. 56,717. Feed Cutter. (Coupe-nourriture.)

William Joseph Mallard, Atlanta, Georgia, U.S.A., 19th July, 1897; 6 years. (Filed 24th June, 1897.)

Claim.—In a stock-feed cutter, the combination with a box having a platform partly closing its top, of a feed-box mounted centrally and transversely on said platform and consisting of two vertical walls and an upper wall of less extent arranged close to the exit end of the feed-box and near the edge of the platform overhanging the interior of the box, a bracket consisting of two independent slightly separated parts hanging vertically from the lower face of the platform near its edge, and a straight two-edged blade having its end

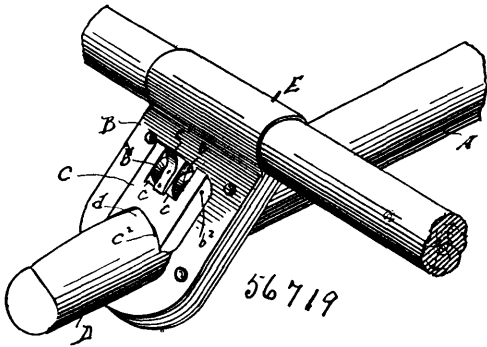


John L. Dolson, Charlotte, Michigan, U.S.A., 21st July, 1897; 6 years. (Filed 25th June, 1897.)

Claim.—1st. The combination with the box, of the spindle provided with a longitudinal main oil-groove on its upper side, and a spiral feed-groove extending from a point in the main groove back from the end of the spindle, to the end face of the spindle at a point below the main oil-groove, and a recessed oil-holding cap engaging the box and having the main portions of its oil recess below the plane of the main oil-groove, whereby the said oil is carried from said recess upward through the spiral groove to the main oil-groove by the revolution of the box, substantially as described. 2nd. The combination with the box, of the spindle provided with a longitudinal main oil-groove in its upper side, a spiral feed-groove extending from a point in the main groove back from the end of the spindle to a point on the end of the spindle below said main groove and an overflow from the oil-groove at the extreme end of the spindle, and a recessed oil-holding cap engaging said box, and having the main portions of its oil recess below the plane of the main oil-groove whereby the oil will be carried from the oil recess upward through the feed-box to the main oil-groove by the rotation of the box, substantially as described. 3rd. The combination with the box provided adjacent to its inner end with a shoulder, of the spindle provided with a longitudinal main groove and a spiral feed-groove adjacent to the point of the spindle, a detachable collar secured to said spindle, and provided on its periphery with a spiral groove extending from a point near the inner face of the collar forwardly around the collar to the outer face to conduct lubricant outwardly toward the main oil-groove, a retaining collar on the spindle engaging the box, and having a shoulder on the inner side of the spindle collar, and an oil-holding cap engaging the outer end of the box, and communicating with the spiral feed-groove, substantially as described. 4th. The combination with a spindle provided with an annular sand-groove, a longitudinal main oil-groove, and a spiral feed groove adjacent to the spindle-point, communicating with the main groove, of a collar detachably engaging the spindle between the main oil-groove and the sand-groove, and provided with a spiral groove extending around its periphery from the inner face to the outer face, the box engaging a spindle and provided with a shoulder adjacent to the outer face of the said spindle collar, a retaining collar having a portion engaging the spindle and covering said sand-groove, a shoulder adjacent to the inner face of the spindle-collar, and an oil-holding cap secured to the outer end of the box and

communicating with said feed-groove, substantially as described. 5th. The combination with the spindle provided with an annular sand-groove, a longitudinal main oil-groove and a spiral feed-groove adjacent to the spindle-point communicating with the main oil-groove, and a shoulder adjacent to the said groove, of a collar detachably secured to the spindle, and engaging said shoulder and provided with a spiral groove extending around its periphery from its inner face to its outer face, the box surrounding the spindle and provided with a shoulder adjacent to said collar, the retaining collar having a portion surrounding the spindle and covering said sand-groove, a shoulder adjacent to said spindle collar and a portion detachably engaging the box, a washer interposed between the retaining collar and the spindle collar, fitting tightly in said retaining collar, a washer of less diameter than the box interposed between the shoulder of the box and the spindle-collar, and an oil-holding cap detachably secured to the box, communicating with said spiral feed-groove and provided with a removable plug, substantially as described.

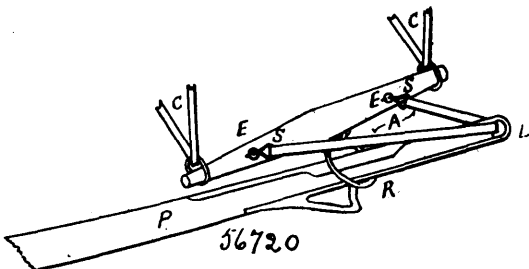
No. 56,719. Pole-Coupling. (*Joint de timon de voiture.*)



Carl H. Anderson, Ogden, Iowa, U.S.A., 21st July, 1897; 6 years. (Filed 25th June, 1897.)

Claim.—1st. In a pole-coupling, the combination with a sleeve having an offset and adapted to be applied to the end of a pole, of a plate formed with an aperture of sufficient size to be slipped over said sleeve and its offset, means for connecting said plate to the yoke, and an independent pivoted gravity-catch mounted upon said plate, and adapted to normally extend over a portion of the aperture in said plate and prevent the offset of the sleeve from passing through said aperture, and thus hold the plate against accidental displacement from the end of the pole, substantially as described. 2nd. In a pole-coupling, the combination with a sleeve having an offset and adapted to be applied to the end of a pole, of a plate formed with an aperture of sufficient size to be slipped over the end of said sleeve and the offset of the same, a strap formed into a loop for the reception of the neck-yoke, and having its opposite ends secured to said plate, and an independent pivoted gravity-catch mounted upon said plate, and adapted to normally extend over a portion of the aperture in said plate to prevent the offset of the sleeve from passing through said aperture and thus allow accidental displacement of the plate from the end of the pole, substantially as described. 3rd. In a pole-coupling, the combination with a sleeve having an offset, and adapted to be applied to the end of a pole, of an apertured plate adapted to be slipped over said sleeve, spaced apertured lugs mounted on said plate, a gravity-catch formed with spaced apertured lugs and a pivot pin for connecting the lugs of the catch and the lug mounted upon the plate, substantially as described.

No. 56,720. Guard Strap. (*Garde de courroie de harnais.*)

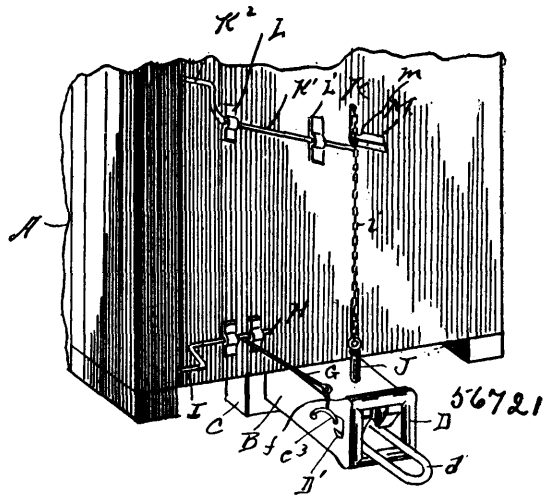


James Machum, Nashwaaksis, N.B., Canada, 21st July, 1897; 6 years. (Filed 25th June, 1897.)

Claim.—1st. A guard strap or chain in combination with the neck yoke and pole of a team, substantially as shown and described. 2nd. A guard strap or chain, with snaps at its ends in combination with the rings or eyes attached to the neck yoke, and with the pole of a team, substantially as and for the purpose hereinbefore set forth. 3rd. A guard strap or chain adjustable as to its length in combination with the neck yoke and pole of a team, as and for the purpose

hereinbefore set forth. 4th. A guard strap or chain, cased in the middle part of its length, in combination with the neck yoke and pole of a team, as shown and described. 5th. The combination of a strap or chain with snaps at its ends and rings or eyes, attachable to the neck yoke of a team, as and for the purpose hereinbefore set forth. 6th. The combination of a strap or chain with snaps at its ends, adjustable as to its length, and with rings attachable to the neck yoke of a team, as and for the purpose set forth. 7th. The combination of a strap or chain with snaps at its ends with casing about its mid-length, and with rings or eyes attachable to the neck yoke of a team, as and for the purpose set forth. 8th. The combination of a strap or chain with snaps at its ends, adjustable as to its length, cased as to its mid-length, with rings or eyes attachable to the neck yoke of a team, as and for the purpose set forth.

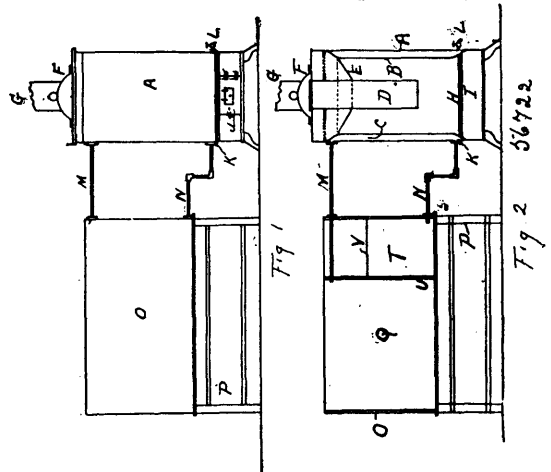
No. 56,721. Car Coupler. (*Attelage de chars.*)



William Ernest Sauerman, Olds, Iowa, U.S.A., 21st July, 1897; 6 years. (Filed 26th June, 1897.)

Claim.—1st. In a car coupler, the combination, with the draw-head, an arm therein, and means for causing said arm to assume a vertical position, of a pin, a lever connected with said pin at one end, a rod extending from the other end of said lever, bearing arranged at an inclination with each other within which said rod is loosely journaled, and a lock adjacent to said lever, substantially as described and for the purposes set forth. 2nd. In a car coupler, the combination with the draw-head, of an arm journaled therein, a pin arranged to be supported by said arm when the latter is vertical, and the lever connected to the upper end of said pin for raising the same, and the lock engaging said lever and holding said pin elevated, substantially as described and for the purposes specified. 3rd. In a car coupler, the combination with the draw-head, of a pin for locking the link therein, a lever connected with said pin at one end, a rod extending from the other end of said lever, bearings arranged at an inclination with each other within which said rod is loosely journaled, and a lock adjacent to said lever, substantially as described and for the purpose specified.

No. 56,722. Water Heater. (*Chauffeur d'eau.*)

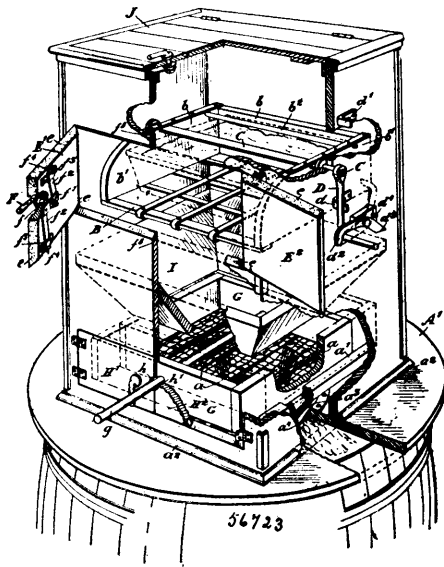


Joseph Westover, St. Thomas, Ontario, Canada, 21st July, 1897; 6 years. (Filed 26th June, 1897.)

Claim.—1st. The combination with a water heater, of an expansion tank having settling compartments and screens for the water to pass through on its way to the heater, substantially as and for the purpose hereinbefore set forth. 2nd. The combination in a water heater, of an outer shell, with a cylindrical combustion chamber secured thereto and surrounded by a water space, substantially as and for the purpose hereinbefore set forth. 3rd. In a water heater the combination with the combustion chamber of a diaphragm placed therein for deflecting and distributing the heat, substantially as and for the purpose hereinbefore set forth.

No. 56,723. Dust-tight Sifter for Ashes, etc.

(*Tamis à cendre, etc.*)



Alexander McKay, Montreal, Quebec, Canada, 21st July, 1897; 6 years. (Filed 28th June, 1897.)

Claim.—1st. In a sifting apparatus of the class described, in combination with the box, the sifting screen, the dumping platform approximately centrally hung from, and pivoted on a shaft journalled in the sides of the casing containing the same, means for revolving the said shaft whereby the said platform is turned upside down, and means for retaining any pan, etc., from falling therefrom, as and for the purpose specified. 2nd. In a sifting apparatus of the class described, in combination the box, the sifting screen, the dumping platform, the rear partition or back thereof *b*, the rod *b*², the shaft *C*, and means for revolving the same, as and for the purpose specified. 3rd. In a sifting apparatus of the class described, in combination the box, the sifting screen, the dumping platform and shaft therefor, the crank handle *D*, the stop lugs *d* and *d*¹, the locking hook *d*², the bevel-ended rearward extension thereof *d*³, arranged as and for the purpose specified. 4th. In a dust-tight sifting apparatus of the class described, in combination the box, the sifting screen, the dumping platform and means for operating the same, and the dust-tight doors *E* and *H*, arranged opposite to the dumping platform and the sifting screen respectively, as and for the purpose specified. 5th. In a dust tight sifting apparatus of the class described, the box, the sifting screen, the dumping platform and means for operating the same, the doors *E* and *H*, formed in two leaves having bevelled edges, fitting against corresponding edges in the case, the handle *F*, shank *f*, cross-bar *f*¹, sliding bars *f*², pivotally attached thereto, retaining guides *f*³, all arranged within the box or case as and for the purpose specified. 6th. In a sifting apparatus of the kind described, the box or case, the dumping platform and means for operating the same, the hopper *I*, reciprocating screen *G*, the supporting bars *a*, and guide bars *a*¹, the dust-tight doors *E* and *H*, the platform *A*, the cleats *a*², and the hopper opening *a*³, arranged as and for the purpose specified.

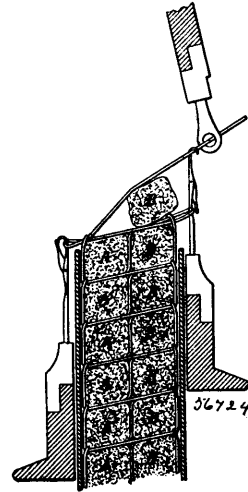
No. 56,724. Knit Fabric for Mattresses, Cushions, etc.

(*Tissus pour matelas, etc.*)

George Frederick Summer, Canton, Mass., U.S.A., 21st July, 1897; 6 years. (Filed 28th June, 1897.)

Claim.—An improved fabric, particularly adapted to be used for mattresses and cushions, made of two or more slivers, or ropes of

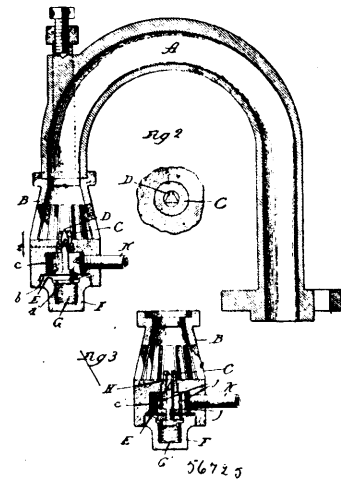
fibres having a little or no twist in them, laid in alternating parallel lines, and secured together by interknit or binding thread or threads



so that these slivers are fastened and held in position in a soft, yielding state, substantially as and for the purposes set forth.

No. 56,725. Pneumatic Track Sander.

(*Appareil pneumatique à sabler les voies de chemin de fer.*)

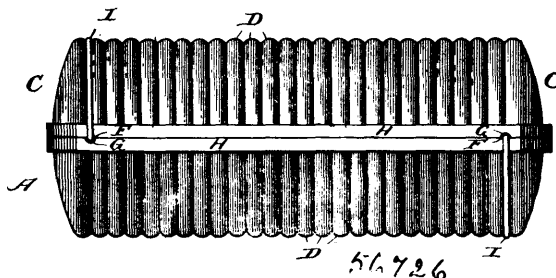


Francis Marion Dean, Huron, South Dakota, U.S.A., 21st July, 1897; 6 years. (Filed 29th June, 1897.)

Claim.—1st. In a track-sander, the combination, with a sand-box and its discharge pipe, of a blast nozzle, the pressure from which is adapted to eject sand from the box through the discharge pipe, and a needle located in the nozzle passage and controlled by the air pressure. 2nd. In a track-sander, the combination, with a sand-box and its discharge pipe, of a nozzle, a source of fluid pressure in combination therewith, a needle or stem within the nozzle passage and a flexible diaphragm secured to one end of the stem and influenced by the fluid pressure. 3rd. In a track-sander, the combination, of a fluid pressure blast nozzle, a connection therefor with a suitable source of fluid pressure, a needle operating in the nozzle passage, and means connected to the needle for operating the same by the pressure of the blast. 4th. In a track-sander, the combination, with a sand-box, of a blast-nozzle within the box, a connection therefor with a suitable source of fluid pressure, a needle operating in the nozzle passage, a flexible diaphragm connected to the needle and influenced by the fluid pressure and means for holding the needle and diaphragm in normal position. 5th. In a track-sander, the combination, with a sand-box and its discharge pipe, of a cage arranged in the sand-box and having an interior chamber, a connecting passage between the cage and discharge pipe, an air-blast nozzle in the cage communicating through the interior chamber with a source of air pressure, a flexible diaphragm arranged in the chamber, and a needle carried by the diaphragm and operating in the blast nozzle passage. 6th. In a track-sander, the combination, with a sand-box and its discharge pipe, of a cage communicating with

the discharge pipe within the box and provided with an interior chamber *c*, a blast nozzle in the cage communicating with the interior chamber, a connection between the source of fluid pressure and the interior chamber, a needle or stem governing the nozzle passage, a diaphragm connected to the end of the needle and influenced by the fluid pressure, and a spring arranged on the opposite side of the diaphragm from that exposed to the fluid pressure and adapted to keep the diaphragm in normal position. 7th. In a track-sander, the combination, with a sand-box and its discharge pipe, of an air-blast nozzle, the air pressure from which is adapted to eject sand from the box through the discharge pipe, a needle operating in the nozzle passage, the body of such needle being flattened on one or more of its sides to permit the passage of air, and means connected to the needle for operating the same and under the control of the air pressure. 8th. In a track-sander, the combination, with a sand-box and its discharge pipe, of an air nozzle, a suitable source of pressure, a connection therefrom to the nozzle, the air pressure from the nozzle being adapted to eject sand from the box through the discharge pipe, a needle or stem working in the nozzle passage and adapted to normally close the same, and a diaphragm connected to the stem and controlled by the air pressure to operate the stem. 9th. In a track-sander, the combination, with a sand-box and its discharge pipe of a cage arranged in the sand-box, and having an upper chamber with openings in the side thereof, and having a hollow base, a cup-shaped plug adapted to fit in the hollow base to form an interior chamber *c*, communicating with a source of fluid pressure, a passage between the interior chamber, and upper chamber, a needle or stem adapted to normally close said passage, a flexible diaphragm clamped by the plug against the base portion and secured to the end of the stem, and a spring arranged in the hollow portion of the plug and pressing against the diaphragm to seat the stem and close the passage where-by when pressure is admitted the diaphragm will be caused to be moved against the tension of the spring to open the passage. 10th. In a track-sander, the combination, with a sand-box and its discharge pipe, of a cage *B*, arranged in the box and having a hollow base portion, a cup-shaped plug *F*, adapted to screw part way in the base portion to form an interior chamber *c*, a connection between a suitable source of fluid pressure and the interior chamber, a blast nozzle *C*, communicating with the interior chamber, a needle or stem *D* working in the nozzle passage, a flexible diaphragm *E*, connected to the stem, and a spring *G*, arranged in the plug and forcing the diaphragm upward to seat the stem, and close the nozzle passage.

No. 56,726. Baking Pan. (Tourtière.)

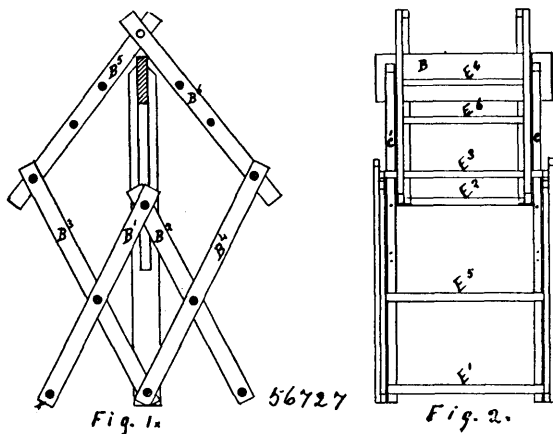


William Harold Mullins, Salem, Ohio, U.S.A., 21st July, 1897; 6 years. (Filed 29th June, 1897.)

Claim.—1st. A sheet metal baking pan bearing a series of transverse corrugations or projections, in combination with a supporting bail adapted to interlock with said corrugations or projections, substantially as described. 2nd. A sheet metal baking pan bearing a series of transverse corrugations or projections, in combination with a swinging supporting bail pivoted upon opposite sides thereof and adapted to interlock with said corrugations or projections, substantially as described. 3rd. A semi-cylindrical baking pan bearing a series of transverse corrugations or projections, in combination with a swinging supporting bail pivoted thereon having a horizontal foot for interlocking with said corrugations or projections, substantially as described. 4th. A semi-cylindrical baking pan bearing a series of transverse corrugations or projections, in combination with a swinging supporting bail having projecting angular sides and a horizontal foot for interlocking with said corrugations or projections, substantially as described. 5th. A baking pan formed of two corresponding and interchangeable sections, one provided with a bail adapted to swing over the other and interlock the two, substantially as described. 6th. A baking pan formed of two corresponding and interchangeable sections each provided with a bail adapted to swing over the other and interlock the two, substantially as described. 7th. A baking pan formed of two corresponding sections each bearing a series of transverse corrugations or projections, in combination with a bail pivoted upon each section adapted to engage said corrugations of the other section and interlock the two, substantially as described. 8th. A cylindrical baking pan formed of two corresponding sections surrounded by a series of transverse corrugations or projections, in combination with lugs and depressions upon the meeting surfaces of said sections to insure registration, and a swinging bail upon each section for engaging the corrugations of its

adjacent section and interlocking the two, substantially as described. 9th. A cylindrical baking pan formed of two corresponding sections bearing a series of transverse corrugations or projections, in combination with a reinforcing flange on each pan section, and interlocking bails pivoted between the flanges for engaging said corrugations, substantially as described.

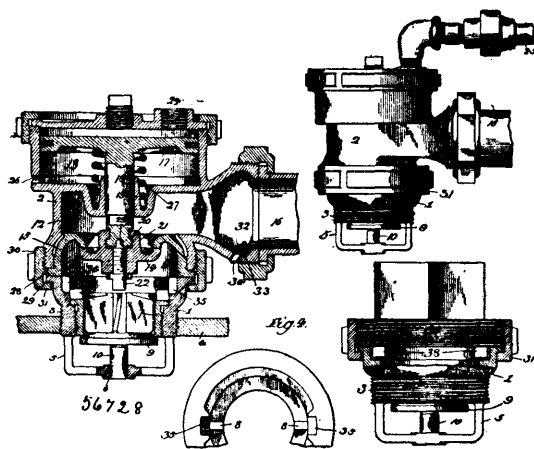
No. 56,727. Washing Machine. (Machine à laver.)



Austin A. Merriam, Port Elgin, Ontario, Canada, 21st July, 1897; 6 years. (Filed 29th June, 1897.)

Claim.—1st. The combination of an upright frame with other frames jointed together, swung from cross-bars and movable, substantially as and for the purposes hereinbefore set forth. 2nd. The combination of cross-bar *E*², sliding up and down the slits in the centre frame, with the pin *A*, and corresponding pin, substantially as shown for the purposes specified.

No. 56,728. Blow-off Valve. (Soupape de purge.)

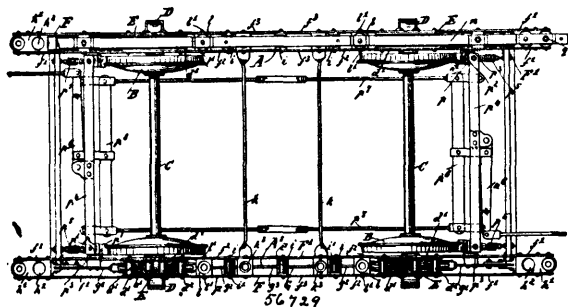


William McIntosh, Winona, Minnesota, U.S.A., 21st July, 1897; 6 years. (Filed 29th June, 1897.)

Claim.—1st. In a blow-off valve, the combination of a valve casing having communication with a boiler and the atmosphere, a fluid pressure-actuated piston in the casing, a stem for the piston and a valve controlled by the piston and controlling the passage through the casing from the boiler to the atmosphere, such valve being removably secured to the piston stem. 2nd. In a blow-off valve, the combination of a valve casing having a passage from a boiler to the atmosphere, a fluid pressure-actuated piston in the casing, a stem therefor, a valve controlling said passage and removably connected to the piston stem, and a removable seat on which the valve seats. 3rd. In a blow-off valve, the combination of a valve casing having a passage from a boiler leading to a discharge opening, a valve controlling such passage, and a recess chamber near the discharge opening having a drip hole therefrom. 4th. In a blow-off valve, the combination of a valve casing in the blow-off port, of a boiler having a passage from the boiler to the atmosphere, a valve governing and normally closing such passage, fluid pressure mechanism actuating the valve to open the same, and a spring for restoring

the valve to normal position. 5th. In a blow-off valve, the combination of a valve casing in the blow-off port, of a boiler having a passage from the boiler to the atmosphere, and also having a cylinder, a valve governing and normally closing such passage, a piston travelling in the cylinder and having a stem connected to the valve for actuating the same, whereby as fluid pressure is admitted to the cylinder the piston will move to open the valve, and a spring for restoring the parts to normal position. 6th. In a blow-off valve, the combination of a casing, a valve therein for normally closing the blow-off port and having a depending stem, means for operating the valve, and a yoke or frame connected to the casing and having a guide to receive the depending valve stem. 7th. In a blow-off valve, the combination of a casing, a valve therein for normally closing the blow-off port, means for operating the valve, and means for guiding the valve in its movements. 8th. In a blow-off valve, the combination of a casing in two sections, one section being secured in the blow-off port, a coupling ring for clamping or connecting the sections together, a valve in the casing for normally closing the blow-off port, and means for operating the valve. 9th. In a blow-off valve, the combination of a valve casing in two sections, one being the outer section and the other the inner or foundation plug, the casing having a passage from the blow-off port to the atmosphere, and also having a cylinder, a piston therein having a stem, a valve removably secured to the stem and governing said passage, and a second valve governing the blow-off port and adapted to be unseated by contact with the first valve. 10th. A blow-off valve having a foundation plug in combination with the means for securing the same into or removing it from the boiler, comprising a disc nut and a clamping device for securing the nut to the plug. 11th. A blow-off valve having a foundation plug provided with internal recesses, and the means for securing or removing the plug from the boiler, comprising a disc nut having lugs received by the recesses, and a ring for coupling the disc nut and plug together. 12th. A blow-off valve having a foundation plug provided with external screw-threads for screwing into the boiler, and with internal recesses and the means for securing or removing the plug from the boiler, comprising a disc nut having an angular head and an externally screw-threaded disc fitting in the recesses and an internally screw-threaded ring engaging the plug and screwing upon the disc nut, whereby the plug may be rotated by turning the disc nut. 13th. The combination of a valve, a stem therefor, and means for removably securing the valve to the stem, comprising flanges or extensions on the valve, engaging the stem, and a bolt passing through the valve and contacting the stem for retaining the valve upon the stem. 14th. The means for removably securing a valve to a stem, comprising a shoulder on the stem, an extension on the valve for engaging the shoulder, and a bolt passing through the valve and entering the stem. 15th. In a blow-off valve, the combination of a casing having a passage from a boiler to the atmosphere, a fluid pressure actuated piston in the casing, a stem therefor having an end shoulder, a valve controlling said passage and provided with an extension engaging the shoulder, and a screw bolt passing through the valve body and entering the stem. 16th. In a blow-off valve, the combination of a casing having a passage from a boiler to the atmosphere, a fluid pressure-actuated piston, a stem therefor having a shoulder and end recess, a valve controlling said passage and having flanges engaging the shoulder, and a bolt with a reduced end, the bolt passing through the valve and entering the recess. 17th. In a blow-off valve, the combination of a casing having a passage from a boiler to the atmosphere, and also having a cylinder, a piston therein, a piston stem integral therewith, a valve governing the blow-off port, a second valve removably connected to the stem for governing said passage, and a removable valve seat for such second valve.

No. 56,720. Car Truck. (Train de chars.)



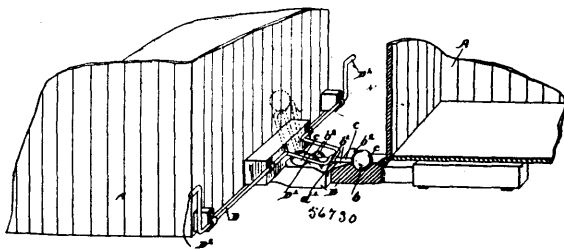
George W. Lacy, Kingston, New York, U.S.A., 21st July, 1897; 6 years. (Filed 30th June, 1897.)

Claim.—1st. In a car truck, a side frame comprising two similar symmetrical truss portions, connected by an intermediate device formed of adjacent bars, one member of each truss and of the intermediate connection being double, with a pedestal secured between the members of each truss portion, substantially as specified. 2nd.

In a car truck, a side frame comprising two similar symmetrical truss portions composed of double members, connected by an intermediate device formed of adjacent double bars, with a pedestal secured between the members of each truss portion, substantially as specified. 3rd. In a car truck, a side frame comprising two similar symmetrical truss portions, the upper member of which is double, connected by intermediate adjacent bars joined to the inner ends of each of the truss bars, the upper bar being double, the two bars being tied at intervals, and pedestals secured between the members of the truss portions respectively, substantially as specified. 4th. In a car truck, a side frame comprising two truss portions composed of a similar obtuse angled upper and lower members respectively, connected by intermediate horizontal adjacent bar members, the lower angles of the truss portions being inverted, in combination with pedestals secured between the angles of each truss portion, substantially as specified. 5th. In a car truck, a side frame comprising two truss portions composed of similar obtuse angled upper and lower members respectively, connected by intermediate horizontal adjacent bar members, one continuous member throughout the frame being composed of double bars, the lower angles of the truss portion being inverted, in combination with pedestals secured between the angles of each truss portion, substantially as specified. 6th. In a car truck, a side frame comprising two similar symmetrical truss portions composed of continuous upper and lower members, having an angular expansion in the centres respectively, connected by adjacent horizontal bar members, one continuous member throughout the truss and bar being double, in combination with a pedestal secured in each expanded truss portion between the upper and lower members respectively, substantially as specified. 7th. In a car truck, a side frame comprising two truss portions composed of similar angular upper and lower members respectively, the lower angles being inverted, connected by intermediate horizontal adjacent bars, tied together at intervals by suitable stays, in combination with pedestals located one in each truss portion, in the widest part thereof, substantially as specified. 8th. In a car truck, a side frame comprising two truss portions composed of similar angular upper and lower members respectively, one of which is double, the lower angles being inverted, connected by intermediate horizontal adjacent bars, one of which is double, tied together at intervals by suitable stays, in combination with pedestals, located one in each truss portion, in the widest part thereof, substantially as specified. 9th. In a car truck, a side frame comprising two truss portions composed of similar obtuse angled continuous upper and lower members respectively, the lower angles being inverted, joined by intermediate horizontal adjacent bar members tied together at intervals, in combination with pedestals secured to the top and bottom members of the truss portions respectively at the widest part thereof, the outer extremities of the said upper and lower members being firmly secured together at an acute angle to each other at each end, forming with the said pedestals triangles of isosceles form, substantially as specified. 10th. In a car truck, a side frame comprising a double bar upper member having two obtuse angled portions connected by a horizontal depressed portion and single bar lower member having two inverted obtuse angled portions symmetrical with the angular portions of the upper member, connected by a horizontal elevated portion, tied at intervals to the upper horizontal portion, the said upper and lower members firmly secured together at their outer extremities in acute angles of equal sides of each end, forming extended side frames, in combination with pedestals secured between the said upper and lower members at their points of greatest divergence, forming bases of isosceles triangles with the extended acute angled portions aforesaid, substantially as specified. 11th. In a car truck, a side frame comprising two similar symmetrical truss portions, connected by an intermediate device formed of adjacent bars, in combination with pedestals secured one in each truss portion in the widest part thereof, each pedestal being provided with a cylindrical web, and an axle box and a spring located upon said axle box, enclosed by said web, and sustaining the said pedestal, substantially as specified. 12th. In a car truck, a side frame comprising two similar symmetrical truss portions, connected by an intermediate device formed of adjacent bars, in combination with a pedestal secured in the expanded portion of each truss, each having flanges d^1 , d^1 , jaws e^2 , e^2 , and a spring connection between the side of the axle box and the top of the said pedestal, substantially as specified. 13th. In a car truck, a side frame comprising two similar symmetrical obtuse angled truss portions connected by adjacent bar portions, in combination with a pedestal secured in each truss portion, an axle box in each, a stay piece provided with a spring seat, and a spring between each stay piece and axle box, substantially as specified. 14th. In a car truck, a side frame comprising two similar symmetrical obtuse angled truss portions connected by adjacent horizontal bar portions, in combination with a pedestal secured in each truss portion, an axle box in each, a spring connection between the sides of the axle boxes and the tops of the pedestals, respectively, and buffers located between the pedestals and the tops of the respective axle boxes, substantially as specified. 15th. In a car truck, a side frame comprising two similar symmetrical obtuse angled truss portions connected by adjacent horizontal bar portions suitably tied together, the upper and lower bar members of the said truss portions meeting in an acute angle of equal sides at their outer ends, and there secured to blocks or castings having spring seats, springs located thereon, and a bolster platen supported on the said springs, substantially as specified. 16th. In a car truck, a side

frame, comprising two similar symmetrical obtuse angled truss portions connected by adjacent horizontal bar portions suitably tied together, the upper and lower bar members of the said truss portions being formed of similar flat structural material vertically disposed as to greatest width, meeting in an acute angle of equal sides at their outer ends, and there secured to blocks or casting having spring seats, springs located thereon, a bolster plate supported on the said springs, and intermediate springs, as m^1 , l^2 , interposed between the side frame upper bar member and the said bolster plate, substantially as specified. 17th. In a car truck, a side frame comprising two similar symmetrical angular truss portions connected by adjacent horizontal bar portions suitably tied together, the upper and lower members of the said truss portions being formed of similar flat structural material, vertically disposed as to greatest width, in combination with a yoke formed pedestal secured in each truss portion and provided with a bridge, b^1 , made integral with the said pedestal, the axle box within each yoke, and a buffer interposed between each axle box and the corresponding bridge, substantially as specified. 18th. In a car truck, a side frame comprising two similar symmetrical angular truss portions connected by adjacent horizontal bar portions, in combination with a yoke formed pedestal secured in each truss portion, each having a bridge, b^1 , formed integral with the pedestal, an axle box within each yoke, a buffer between each axle box and the corresponding bridge, stay pieces, o , having vertical shoulders, o^1 , o^2 , spring cup, o^2 , and horizontal sleeves, o^3 , with bolt connections, o^5 , all substantially as specified. 19th. In a car truck, a side frame comprising two truss portions, composed of similar obtuse angled upper and lower members respectively, the angles of the lower members being inverted, the said truss portions being connected at their inner extremities by intermediate horizontal adjacent bar members, the latter being united together at suitable intervals by tie devices, i , having rivet receiving sleeves, i^1 , made integral with the ties, and shoulders i^2 , i^2 , all substantially as specified. 20th. In a car truck, a side frame, comprising two truss portions, composed of similar obtuse angled upper and lower members, respectively, the angles of the lower members being inverted, the said truss portions being connected at their inner extremities by intermediate horizontal adjacent bar members, the latter being united together at intervals by tie devices, i , having rivet receiving sleeves, i^1 , made integral with the ties, shoulders, i^2 , i^2 , and jaws, i^3 , all substantially as specified. 21st. In a car truck, a side frame in combination with a cup-shaped spring seat serving as a tie device, secured to the bar members of said frame by means of rivets, the heads of which on the inside of said seats are countersunk, substantially as described. 22nd. In a car truck, a side frame in combination with a cup-shaped spring seat serving as a tie device secured to the bar members of said side frame by means of rivets, the heads of which on the inside of said seat are countersunk, and a rotor hanger bar, k , and spring bolt, k^1 , substantially as described. 23rd. In a car truck, a side frame, comprising two truss portions, composed of upper and lower bar members, the upper bar members being extended at their outer ends beyond the point where they meet the lower bar members and secured to a block or casting, to form an extended side frame, suitable tie devices between said upper and lower bar members, a bolster plate and spring connections between said side frame and bolster plate, substantially as described.

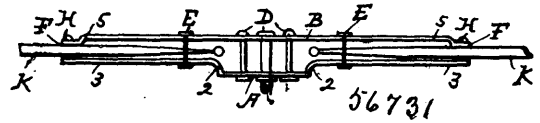
No. 56,730. Car Coupler. (Attelage de chars.)



Charles Tench, Schomberg, Ontario, Canada, 21st July, 1897; 6 years. (Filed 30th June, 1897.)

Claim.—1st. In a car coupler, in combination, the draw-head having a concave recess and twin hooks extending upwardly from the draw-head in front of said recess, the bar with end balls having one ball fitting normally within the recess of one draw-head behind the twin hooks and means for raising the ball bar from and lowering it into the concave recess behind the twin hooks in the opposite draw-head, as and for the purpose specified. 2nd. In a car coupler, in combination with the draw-head having a concave recess and twin hooks extending upwardly from the draw-head in front of said recess, the bar with end balls having one ball fitting normally within the recess of one draw-head behind the twin hooks and a cross rod provided with a central crank having a connecting loop encircling the bar, suitable journals for such cross rod in the end of the car and end handles for manipulating such rod, as and for the purpose specified.

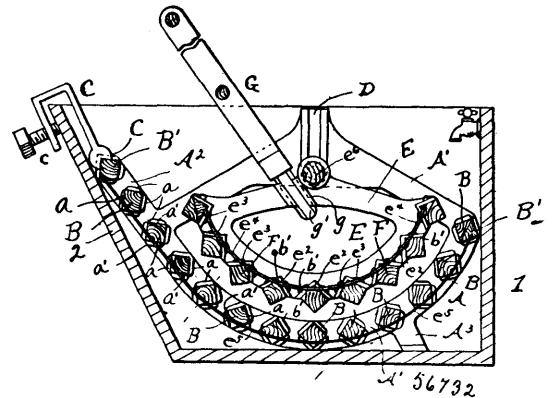
No. 56,731. Doubletree. (Palonnier.)



Charles L. Pittman, Union, Nebraska, U.S.A., 21st July, 1897; 6 years. (Filed 30th June, 1897.)

Claim.—1st. In a doubletree, the strap-metal bar A, provided with the upwardly-extending curved portions 2, 2, and the outwardly-projecting straight portions 3, 3, the upper strap-bar B, provided with the downwardly-extending portions 5, 5, terminating in the ears F, F, the bolts H, H, extending through said ears F, F, and the lower bar A, the central reinforcing-bolts D, D, the terminal half-loops E, substantially as shown.

No. 56,732. Washing Machine. (Machine à laver.)



Lehman Weil, New York, State of New York, U.S.A., 21st July, 1897; 6 years. (Filed 30th June, 1897.)

Claim.—1st. As a new article of manufacture, a washing machine adapted for use in connection with an ordinary stationary tub, comprising a rack which is segmental in cross section, said rack being composed of end uprights and cross bars extended at an angle, and an oscillating vertically sliding rubber, comprising segmental end frames and cross bars extended at an angle opposite to the angle of the cross bars of said rack, and means for oscillating the rubber and for connecting the rack to a tub, substantially as shown and described. 2nd. As a washing machine, the combination, with a stationary tub, of a rack mounted within said tub and a vertically sliding oscillating rubber comprising segmental end frames and cross ribs or rods which are square in cross section, and a removable handle for operating the rubber, and means for attaching the rack within the said stationary tub, substantially as shown and described. 3rd. As a washing machine, the combination of a series of cross rods or ribs extended at an angle and connecting two uprights of segmental contour and a swinging and vertically movable rubber, comprising end frames of segmental contour and cross rods extended at an angle opposite to the angle of the series of cross ribs connecting the two said uprights, with a stationary tub, and means for connecting the device to said tub, substantially as shown and described.

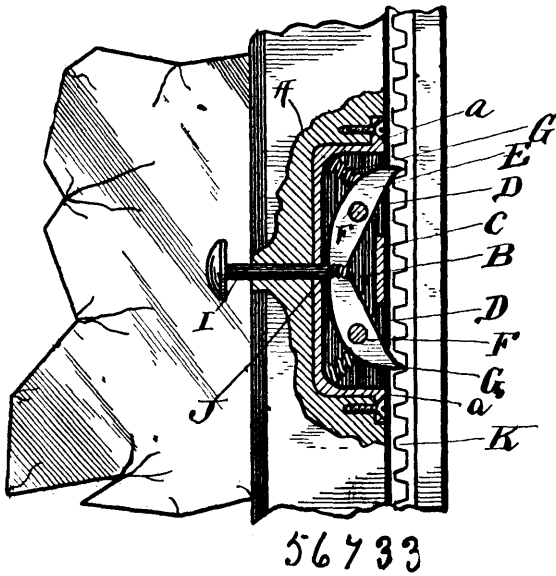
No. 56,733. Sash Fastener.

(Arrête-croisée.)

William Andrew Gammell, West Jordan, Utah, U.S.A., 21st July, 1897; 6 years. (Filed 2nd July, 1897.)

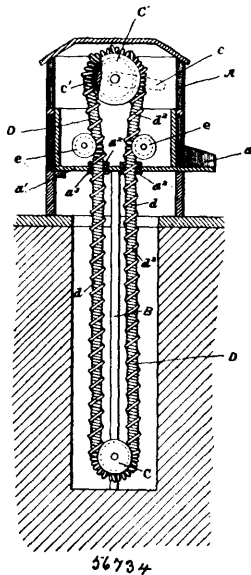
Claim.—The combination with the rack bar, of the casting secured to the side stile of the sash, and having oppositely disposed pivoted catches adapted to engage the rack bar to hold the window against movement in either direction, the adjacent ends of said catches being provided with semi-circular screw-threaded openings

and springs acting upon said catches, and a push pin engaging said screw threaded openings in the adjacent ends of the catches



and adapted to actuate said catches simultaneously, substantially as specified.

No. 56,734. Pump. (Pompe.)

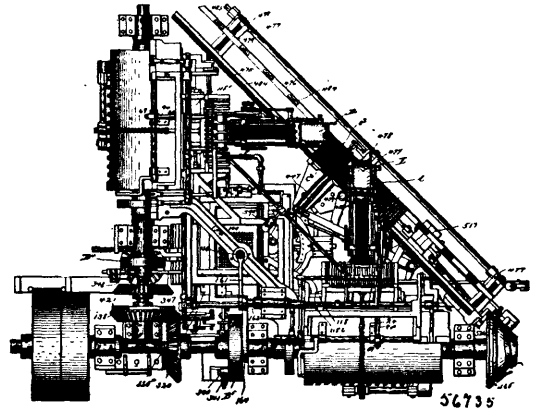


Warren W. James, Evergreen, Colorado, U.S.A., 21st July, 1897 ; 6 years. (Filed July 2nd, 1897.)

Claim.—1st. In a pump, the combination with suitable supporting wheels mounted in the receptacle from which the water is to be lifted, of an endless conveying tube formed of coil springs, and solid heads mounted at intervals in said tube, and means for operating said tube to lift the water, substantially as described. 2nd. In a pump, the combination with a suitable frame, of supporting grooved wheels, an endless conveying tube formed of closely coiled springs, solid heads placed at intervals in said tube, and auxiliary coil springs applied about the first-mentioned springs and adapted to hold the coils of the same closely together, substantially as described. 3rd. In a pump, the combination with a suitable frame having grooved wheels mounted therein, of an endless conveying tube applied about said wheels, and comprising a plurality of coil springs, solid heads applied at intervals in said coils, and a trough through which said conveyer passes, adapted to catch the water discharged from the upper end of the same, substantially as described. 4th. In a pump, the combination with a suitable supporting frame, of grooved wheels mounted therein, and apertured partition also mounted on said frame, extended vertical flanges about the apertures of said partition, an endless conveying tube adapted to pass through said apertures, and about said wheels, and comprising a

plurality of coil springs and solid heads applied in said springs at intervals, substantially as described. 5th. In a pump, the combination with a suitable frame, of grooved wheels mounted in the same, an endless conveying tube mounted upon said wheels and comprising a plurality of coil springs and solid heads applied in said springs at intervals, and auxiliary grooved wheels mounted on said frame, and adapted to cause the endless conveying tube to pass about the greater portion of the aforementioned upper grooved wheel, substantially as described.

No. 56,735. Machine for Making Justified Lines of Type. (Machine pour faire les lignes de caractères.)



Tolbert Lanston, Washington, Columbia, U.S.A., 21st July, 1897 ; 6 years. (Filed 29th March, 1897.)

Claim.—1st. In a type forming machine, the combination, substantially as described, of a die case carrying a series of dies, two sliding frames moving in planes at right angles to each other for shifting the die case, pin carriages, having movable pins, connected to said sliding frames and rotary cam cylinders having cam grooves for co-operating with the pins of the pin carriages, substantially as described. 2nd. In a type forming machine, the combination, substantially as described, of a die case and its dies, the sliding frame acting upon the die case, the pin carriages and their pins, the cam cylinders having the cam grooves with which the pins of the pin carriages co-operate and the adjustable connections between the pin carriages and the sliding frames, substantially as described. 3rd. In a type forming machine, the combination, substantially as described, of the main cam cylinders, the pin carriages and their movable pins and the actuating pins working in the pins of the pin carriage operating when raised to lock retracted said last named pins and when depressed to permit of the projection of said pins. 4th. In a type forming machine, the combination, substantially as described, of the pin carriages and its pins, the actuating pins working in the pins of the pin carriage having the reduced bodies and enlarged heads and the springs for keeping them normally elevated, as set forth. 5th. In a type forming machine, the combination, substantially as described, of the pin carriage and its pins, the actuating pins working in the pins of the pin carriage and the vibratory bar operating to strike any depressed actuating pin and through it project the pin of the pin carriage which carries said actuating pin and at the same time prevent the depression of any other actuating pin, as set forth. 6th. In a type forming machine, the combination with the pin carriage and its pins, the actuating pins working in the pins of the pin carriage and the vibratory bar operating through said actuating pins to retract the pins of the pin carriage from the cam cylinder, as set forth. 7th. In a type forming machine, the combination of the pin carriage and its pins, the actuating pins working in the pins of the pin carriage and the two vibratory bars for respectively projecting and retracting the pins of the pin carriage by acting upon their said actuating pins, substantially as described. 8th. In a type forming machine, the combination with the pin carriage and its pins, the actuating pins working in the pins of the pin carriage and the two vibratory bars for respectively projecting and retracting the pins of the pin carriage by acting upon the said actuating pins, and the rock shaft to which said bars are connected and from which they receive motion. 9th. In a type forming machine, the combination, with the pin carriage and its movable pins, of the actuating pins working in said movable pins and co-operating with slots in the pin carriage, said actuating pins having the reduced body portion and the shouldered head portion and provided with the spring as described, whereby upon the depression of an actuating pin and the projection of the pin of the pin carriage which supports it, the actuating pin engage with the pin carriage and become locked down. 10th. In a type forming machine, the combination, with the pins of the pin carriage and their spring pressed actuating pins, of the vertical bars operating to depress said actuating pins having the ribs or projections as described, and the horizontally sliding slotted and notched plate for releasing said vertical depressing bars, substantially as described.

11th. In a type forming machine, such as described, the combination with the vertical bars which operate to depress the actuating pins as described, of the ribs or projections on said bars, the horizontally moving slotted and notched plate and the connected shouldered plate having shoulders corresponding in number and position to the notches in the slotted and notched plate, the pin levers of the feeding mechanism and the bars jointed to said pin levers co-operating with the said notched plate, whereby upon the depression of a pin lever the bar jointed to it will arrest the advancing shouldered plate by engaging with one of its shoulders and a corresponding notch in the slotted and notched plate will be brought into registration with the rib on one of the vertical sliding bars and permit the latter to descend, substantially as described.

12th. In a type forming machine, such as described, the combination of the grooved actuating cam cylinder, the pin carriage and its pins, the pins through which the pins of the pin carriage are actuated, the vertical bars operating upon said actuating pins, the slotted and notched plate with which said bars operate, the shouldered plate connected to the slotted and notched plate, the bars for engaging said shouldered plate, the pin levers and their pins and the perforated feeding cylinder, all constructed and operating as set forth.

13th. In a type forming machine, the combination with the vertically movable bars, which operate upon the actuating pins carried by the pins of the pin carriage, of the slotted and notched plate, with which said bars co-operate and the vibratory cross bar for raising the said vertical bars, as set forth.

14th. In a type forming machine, the combination with the pin levers and the vertical bars jointed thereto, of the cross bar for raising said bars and pin levers and the vibrating finger operating upon said cross bar, substantially as described.

15th. In a type forming machine, the combination of the pin levers and the vertical bars jointed thereto, the cross bar for raising said bars and pin levers and the locking arms, such as described, for locking the said cross bar in elevated position so as to hold the pin levers out of contact with the record strip, substantially as described.

16th. In a type forming machine, the combination with the pin levers, the vertical bars jointed thereto and the cross bars for raising said bars and pin levers, on both sides of the machine, of the locking arms on each side of the machine for engaging with the said cross bar and holding the pin levers elevated and the common shaft and connections, substantially such as described for throwing said locking arms on both sides of the machine into or out of action simultaneously, as set forth.

17th. In a type forming machine, such as described, the combination of the shaft, of the perforated feed cylinder, of the ratchet wheel secured thereto, a second ratchet wheel having reversed teeth mounted upon the said first mentioned ratchet wheel, means for adjusting the position of said ratchet wheels relatively, an advancing pawl for one ratchet wheel and a locking pawl for the other one and a lever for throwing the actuating pawl and the locking pawl into and out of action respectively and *vice versa*.

18th. In a type forming machine, such as described, the combination with the shaft of the feeding cylinder, of the ratchet wheel fixed thereto, the second adjacent loosely mounted ratchet wheel, the nut carried by one of said wheels and the co-operating screw carried by the other for adjusting the relative positions of said wheels, substantially as described.

19th. In a type forming machine, such as described, the combination with the feed cylinder and the shaft, the ratchet-wheel on said shaft, the vibrating lever carrying the pivoted actuating pawl and the swinging locking arms to which said vibrating pawl is connected, whereby upon the raising of said locking arms in position to hold elevated the pin levers, the said actuating pawl will be thrown out of operation and the further rotation of the feed cylinder prevented, substantially as described.

20th. In a type forming machine, such as described, the following elements on each side of the machine, viz: the feed cylinder and its shaft, the ratchet-wheel on said shaft, the vibrating lever carrying the pivoted actuated pawl, the swinging locking arms to which said vibrating pawl is connected, in combination with a shaft and connections substantially such as described, for simultaneously operating the locking arms on both sides of the machine so as to throw both actuating pawls out of action, and arrest the rotation of both feed cylinders.

21st. In a type forming machine, such as described, the combination of the plunger for depressing the centered die the yoke in which said plunger is supported, the sleeve and the spring surrounding the plunger, the adjusting nuts and the arm for imparting motion to the plunger; substantially as described.

22nd. In a type forming machine, the combination of a series of dies mounted so as to move together, mechanism for bringing any one of said dies to a centering point, an adjustable type mould of which the centered die forms a part, mechanism independent of the centered die for automatically adjusting the mould and mechanism for injecting molten metal into the adjusted mould substantially as described.

23rd. In a type forming machine, the combination of a die case or carrier containing a series of dies, mechanism for bringing any one of said dies to a centering point, a rotary mould wheel having a series of moulds of which the centered die is adapted to form a part when either of said moulds is brought to the centering point, mechanism for injecting molten metal into the mould at the centering point to form a type and means for simultaneously ejecting a completed type from a previously filled mould, substantially as described.

24th. In a type forming machine, the combination of a mould carrier having a series of moulds, a movable die or matrix independent of the mould carrier for co-operating with and forming a part of the mould at the casting point and mechanism

for injecting molten metal into each of the moulds in turn when brought to the casting point, substantially as described.

25th. In a type forming machine, the combination of a rotary mould carrier having a series of moulds, a movable die or matrix independent of the mould carrier for co-operating with and forming a part of the mould at the casting point and mechanism for injecting molten metal into each of the moulds in turn when brought to the casting point substantially as described.

26th. In a type forming machine, the combination of a mould carrier having a series of moulds, a die case or carrier containing a series of dies or matrices, devices for centering any one of said dies at the casting point to enable it to co-operate with and form part of the mould at that point and mechanism for injecting molten metal into the moulds at the casting point, substantially as described.

27th. In a type forming machine, the combination with a rotary mould wheel or carrier having a series of moulds, a die case carrying a series of dies or matrices, devices for centering any one of said dies at the casting point to enable it to co-operate with and form part of the mould at that point and mechanism for injecting molten metal into the mould at the casting point, substantially as described.

28th. In a type forming machine, the combination with a movable mould carrier containing a series of dies or matrices, devices for centering any one of said dies at the casting point to enable it to co-operate with and form part of the mould at that point, mechanism for injecting molten metal into the mould at the casting point and mechanism for discharging a completed type from one mould while a type is being cast in another mould, substantially as described.

29th. In a type forming machine, the combination with a movable mould carrier bearing parts of a mould, a movable die constituting when depressed the top of the mould, an external plunger working in the mould and constituting one of its sides and means substantially such as described, for injecting molten metal into the mould, substantially as described.

30th. In a type forming machine, the combination of a rotary mould wheel bearing parts of several moulds a movable die at the casting point constituting when depressed the top of the mould at that point an external plunger at the casting point constituting one of the sides of the mould at said point and means substantially such as described, for injecting molten metal into the mould, as set forth.

31st. In a type forming machine, the combination with a rotary mould wheel carrying a series of partly formed moulds a die case carrying a series of dies or matrices, devices for centering any one of said dies at the casting point to enable it to co-operate with and form part of the mould at that point, an external plunger forming part of the mould at the casting point and means for injecting molten metal into the mould at the casting point, substantially as described.

32nd. In a type forming machine, the combination with a rotary mould wheel carrying a series of partly formed moulds, a die case carrying a series of dies or matrices devices for centering any one of said dies at the casting point to enable it to co-operate with and form part of the mould at that point, an external plunger forming part of the mould at that point, means for injecting molten metal into the mould at the casting point and means for ejecting a type from a previously filled mould while the type in a succeeding mould is being cast, substantially as described.

33rd. In a type forming machine, the combination with a rotary mould wheel, of the moulds each consisting of the two fixed side walls the inner plunger constituting the third side wall, the outer or external plunger constituting the fourth side wall and the vertically movable die or matrix constituting the top of the mould, substantially as described.

34th. In a type forming machine, the combination with a rotary mould wheel, of the moulds each having the two fixed side walls the inner plunger constituting the third side wall, the outer or external plunger constituting the fourth side wall, the vertically moving die or matrix constituting the top of the mould and the means for injecting molten metal into the mould from the bottom, substantially as described.

35th. In a type forming machine, the combination with a rotary mould wheel, of the series of moulds, each having the two fixed said walls, the inner plunger constituting the third side wall and the outer or external plunger constituting the fourth side wall, a movable die case carrying a series of dies or matrices, devices for centering and depressing one of said dies to form the top of a mould and means for injecting molten metal into the mould to form the type.

36th. In a type forming machine, the combination with a rotary mould wheel, of the series of moulds, each having the two fixed side walls, the inner plunger constituting the third side wall, the outer or external plunger constituting the fourth side wall, the vertical movable die or matrix constituting the top of the mould, the means for injecting molten metal into the mould, mechanism for withdrawing the outer plunger after the formation of the type and mechanism for advancing the mould wheel and arresting it with the next succeeding mould at the casting point, substantially as described.

37th. In a type forming machine, the combination with a rotary mould wheel, of the series of moulds each having the two fixed side walls, the inner plunger constituting the third side wall, the outer or external plunger constituting the fourth side wall, the vertical movable die or matrix constituting the top of the mould, the means for injecting molten metal into the mould, mechanism for advancing the mould wheel, and mechanism for actuating the inner plunger to eject the type, substantially as described.

38th. In a type forming machine, the combination with a rotary mould wheel, of the series of moulds each having the two fixed side walls, the inner plunger constituting the third side wall, the outer or external plunger constituting the fourth side wall, the vertical

movable die or matrix constituting the top of the mould, means for injecting the molten metal into the mould, mechanism for withdrawing the outer plunger after the formation of the type, mechanism for advancing the mould wheel, and mechanism for actuating the inner plunger to eject the type. 39th. In a type forming machine, the mould consisting essentially of the fixed side walls, the inner and outer movable plungers, the die or matrix, and the bottom plate having the aperture through which the metal is injected and by the edge of which the button or surplus metal is severed from the type body, substantially as described. 40th. In a type forming machine, the combination with the mould constructed substantially as described, of a button discharger mounted in the inner movable plunger, and means for depressing said button discharger to eject the button of surplus metal, substantially as described. 41st. In a type forming machine, the combination with the mould constructed substantially as described, of a button discharger mounted in the inner movable plunger, means for depressing said button discharger and a spring for retracting said button discharger. 42nd. In a type forming machine, the combination with the mould constructed substantially as described, of a button discharger mounted in the inner movable plunger, and having a pin on its end for entering the aperture in the bottom plate or gate of the mould, substantially as described. 43rd. In a type forming machine, the combination with the inner plunger, of the mould, of the two-part block adjustable with respect to each other to which said plunger is connected, and the fixed cam plate having the groove for receiving a tongue on said two-part block, and operating to hold the said plunger stationary while the type is being formed. 44th. In a type forming machine, the combination with the inner plunger, of the mould and block to which it is connected, of the radially moving slide having the ribs for co-operating with a pin on the plunger block, and the rotary cam plate having a groove with which a roller on said slide engages whereby the said inner mould plunger is moved outward after the type is formed, substantially as described. 45th. In a type forming machine, the combination with the inner plunger, of the mould and the block to which it is connected, of a stationary cam plate co-operating with a tongue on the block to hold the plunger stationary while the type is being formed and also to return the plunger after it has moved outward, and the radially moving slide having the ribs for co-operating with the pin on the said plunger block, and the rotary cam plate having a groove with which a roller on said slide engages for moving outward the plunger to eject the type, substantially as described. 46th. In a type forming machine, the combination with the outer plunger, of the mould, of the inner slide to which it is connected, the intermediate slide on which the inner slide rests, the normal slide connected to the pin carriage, of the right hand side of the machine having the straight guiding groove and the inclined adjusting groove, and the blocks on the intermediate and inner slides respectively for co-operating with said grooves whereby the movement of the normal slide moves the inner slide and its connected plunger out or in, substantially as described. 47th. In a type forming machine, the combination with the inner and intermediate slides, of the normal slide having a guiding groove and adjusting groove as described, the blocks on the intermediate and inner slides respectively for co-operating with said grooves, and the spring pressed rod connected to the inner slide and operating to keep the block of said inner slide at all times in contact with the inclined wall of the adjusting groove, substantially as described. 48th. In a type-forming machine, the combination with the outer plunger, of the mould, of the inner and intermediate slides, the normal slide connected to the pin carriage on the right hand side of the machine, and operating to adjust the inner slide and its connected plunger, and means, substantially as described, for advancing the said inner and intermediate slides together, and thereby cause the plunger to co-operate with the other parts of the mould on the mould wheel in the formation of normal type, substantially as described. 49th. In a type forming machine, the combination with the die case and its dies, the die centering devices controlled by the movements of the pin carriage, the normal slide connected to one of the pin carriages, the inner slide to which the outer plunger of the mould is connected, the intermediate slide upon which the inner slide is mounted, and means, substantially as described, for advancing simultaneously the intermediate and inner slide so as to adjust the plunger nearer to or farther from its opposite co-operating wall in the mould, in accordance with the throw of the pin carriage, substantially as described. 50th. In a type forming machine, the combination with the described inner, outer and intermediate slides, and with the plunger connected to the inner slide, of the rocking block mounted upon the outer slide, and engaging with the intermediate slide, the adjustable rack bars for controlling the position of the said rocking block, and consequently the adjustment of the intermediate slide and the inner slide and connected plunger carried by it, substantially as described. 51st. In a type forming machine, the combination with the described inner, outer and intermediate slides and with the plunger connected to the inner slide, of the rocking block mounted upon the outer slide and provided near its ends with the self-adjusting blocks and near its middle with a perforated arm or projection into which the pin on the intermediate slide projects, and the adjustable rack bars actuated through intermediate connections from the pin carriage on the left side of the machine for controlling the position of said rocking block and consequently the adjustment of the intermediate and the inner slide and connected plunger

carried by it, whereby the justifying adjustment of the outer plunger is effected. 52nd. In a type forming machine, the inner, outer and intermediate slides, the plunger connected to the inner slide, the rocking block mounted upon the outer slide and engaging with the inner slide and the adjustable rack bars for controlling the position of the rocking block in combination with the normal slide operated by the pin carriage to adjust the mould plunger in accordance with the type designated, and means for advancing the inner, outer and intermediate slides and the parts carried by them, substantially as described, whereby the normal slide first adjusts the plunger for the formation of a designated normal type, the inner, outer and intermediate slides are then advanced so as to move the plunger into the mould, and finally the justifying adjustment is given said plunger, as described. 53rd. In a type forming machine, the combination with the rack bars by which the position of the rocking block mounted on the outer slide is controlled, of the movable justifying slide upon which said rack bars are mounted, the pinion co-operating with said rack bars, the intermediate connections, such as described, by which said pinion is turned by the rotation of the shaft 282 and the ratchet wheel, actuating pawl, gear and rack bar by means of which said shaft 282 is turned more or less according to the throw of the pin carriage on the left hand or justifying side of the machine, substantially as described. 54th. In a type forming machine, the combination with the rack bars by which the position of the rocking block mounted on the outer slide is controlled, of the movable justifying slide upon which said rack bars are mounted, the pinion co-operating with the said rack bars, the intermediate connections such as described by which said pinion is turned by the rotation of the shaft 282, the ratchet wheel, pawl, gear and rack bar by means of which said rack 282 is turned more or less according to the throw of the pin carriage on the left hand or justifying side of the machine, and mechanism substantially such as described, by means of which upon the simultaneous operation of the pin carriages on both sides of the machine, the said actuating pawl will be thrown out of operation, substantially as described. 55th. In a type forming machine, the combination with the justifying mechanism of means substantially such as described for automatically throwing the actuating pawl of said justifying mechanism out of action when pins of the pin carriages on the right and left hand sides of the machine are caused to be projected and automatically throwing said pawl into action when a pin of the carriage of the left or justifying side only of the machine is projected, substantially as described. 56th. In a type forming machine, the combination with the actuating pawl of the justifying mechanism, of the switch for raising said pawl out of engagement with its ratchet wheel, the grooved plate with which the finger of said pawl co-operates, the shaft rocked by the co-operation of the pin carriages on both sides of the machine and the arm on said rock shaft connected to the before mentioned switch, substantially as described and for the purpose specified. 57th. In a type forming machine, the combination with the short shafts 129r, 129l on the right hand and left hand sides of the machine respectively, rocked at each stroke of the machine, of the shafts 372r, 372l, the locking bolts for coupling shaft 129r to shaft 372r, and shaft 129l to shaft 372l upon the projection of the pins from the pin carriages on both sides of the machine, the hollow shaft 379 geared to the shaft 372l, the arm 380 on said hollow shaft, the spring arm 381 on the shaft 372r and the loosely hung arm 382 connected to said spring arm whereby the engagement of the said locking bolts on both sides of the machine will cause the rocking of the hollow shaft 379 while the engagement of only one of said bolts will not affect the rocking of said shaft, substantially as described. 58th. In a type forming machine, the combination with the shaft 372r, the hollow shaft 379, the spring arm 381 secured to said shaft 372r, the loose intermediate arm 382 connected to said spring arm and the rigid arm 380 secured to the hollow shaft and provided with an offset which overlaps the loose intermediate arm, substantially as described and for the purpose specified. 59th. In a type forming machine, the combination with the shaft 282 of the justifying mechanism and the pin carriage, rack bar, pawl and ratchet wheel, by which it is turned to, through the described intermediate mechanism, adjust the sliding rack bars 306, 307, of the gear on the side of said ratchet wheel, the spring drum wound up thereby and the locking pawl applied to the ratchet wheel and released through the described connections, by the projection of the designated pin of the pin carriage on the left side of the machine, whereby upon the projection of the said pin carriage the justifying mechanism is brought back to normal position by the action of the spring drum. 60th. In a type forming machine, the combination with the justifying slide, of the reciprocating shaft, means and coupling devices and connections, substantially as described, whereby upon the projection of a justifying pin from the pin carriage on the left hand side of the machine the said reciprocating shaft and justifying slide will be coupled and the said slide carrying the justifying rack bars will be advanced and brought into engagement with their co-operating parts, substantially as described. 61st. In a type forming machine, the combination with the justifying slide, having the longitudinal groove and the recess as described, the reciprocating shaft having the squared portion 329 and the projection 335, the gear mounted upon the squared portion of said shaft and provided with the projection 333, and the rack bar 327, operated through the intermediate connections by the justifying pin of the pin carriage on the left side of the machine, substantially as described. 62nd. In a type forming

machine, the combination with the justifying slide, the reciprocating shaft and pinion co-operating therewith, the rack for rotating said pinion and shaft to couple and uncouple the shaft to the slide and the means for advancing the coupled shaft through a yielding spring connection, substantially as described. 63rd. In a type forming machine, the combination with the pin 113*g*, of the carriage on the left side of the machine, of the arm having the elongated outer portion 113*d*, the shaft 113*f*, to which said arm is connected, the arm 113*g* also secured to said shaft, connecting bar 113*b*, and the arm 295 carrying the releasing pawl of the justifying mechanism. 64th. In a type forming machine, the combination with the space pin, of the carriage on the left side of the machine, of the arm having the elongated outer portion mounted upon the shaft 324, and co-operating with said pin, the shaft 324, the arm 325 thereupon and the rod 326, rack bar 327, the pinion 328, shaft 329, and the justifying slide, substantially as described. 65th. In a type forming machine, the combination with the wheel 215 on the mould wheel shaft provided with the slots 217, of the wheel 220 by which said wheel 215 is driven, having the adjustable slides 222, bearing sleeves 219 for entering the slots of the said wheel 215 whereby the mould wheel is moved through a third of a revolution each time and the accuracy of its movement regulated by the adjustment of the two blocks 222, substantially as described. 66th. In a type forming machine, the combination with the mould wheel having the recesses in its edge, of the co-operating locking bolt and the adjustable support or slide in which said bolt is mounted, substantially as described. 67th. In a type forming machine, the combination with the mould wheel and the centred die of the die case, of a guide plate for directing the die properly to its seat on the top of the mould, substantially as described. 68th. In a type forming machine, the combination with the mould wheel and the centred die, of the die case of a guide plate having a bevelled slot for directing the die to its seat on the mould. 69th. In a type forming machine, the combination with the mould wheel, of the centred die, of the die case, of the guide plate for directing the die to its seat on the mould, and mechanism for automatically advancing said guide plate as the die descends, substantially as described. 70th. In a type forming machine, the combination of the rock shaft 129 provided with the arm 367, of the shaft 372 and its arm 371, the spring pressed bolt 374 and the socket 108*c* with which said bolt normally engages to hold the shaft 372 rigid, substantially as described. 71st. In a type forming machine, the combination of the shaft 129 having arm 367, shaft 372 having arm 371, the spring pressed locking bolt 374, the rocking bar 108 and its arm for co-operating with the locking bolt with the bars 43 released by the operation of the record strips, substantially as described. 72nd. In a type forming machine, the combination with the bars 43 on each side of the machine, depressed as described by the operation of the record strips, the rocking plates 107 having the arms 109, the spring pressed bolts 374, the rock shafts 129*r*, 129*l* provided with the arms 367, the shafts 372*r*, 372*l*, having the arms 371, the hollow shaft 379 geared to the shaft 372*l* and the arms 380, 381, 382. 73rd. In a type forming machine, the combination of the shaft 372*r*, 372*l*, the hollow shaft 379 geared to the shaft 372*l*, the rigid arm secured to the said hollow shaft, the spring arm secured to the shaft 372 and the intermediate arm connected to the said spring arm, whereby the independent rocking of either shaft 372*r* or 372*l* will not affect the position of the intermediate arm while the rocking of said shafts simultaneously will cause said intermediate arm to be moved, substantially as described. 74th. In a type forming machine, the shafts 372*r*, 372*l*, the hollow shaft 379 geared to the shaft 372*l*, the rigid arm secured to said hollow shaft, the spring arm secured to the shaft 372 and the intermediate arm connected to said spring arm in combination with the rock shafts 129*r*, 129*l*, rocked at each stroke of the machine, and coupling devices for connecting said rock shafts to the shafts 372*r*, 372*l*, when pins are projected from the pin carriages on both sides of the machine simultaneously, substantially as described. 75th. In a type forming machine, the combination with the shafts 372*r*, 372*l*, the hollow shaft 379 geared to the shaft 372*l*, the rigid arm secured to the said hollow shaft, the spring arm secured to the shaft 372, the intermediate arm connected to said spring arm and the coupling devices connected to said intermediate arm for throwing into operation the metal pump, substantially as described. 76th. In a type forming machine, the shafts 372*r*, 372*l*, the hollow shaft 379 geared to the shaft 372*l*, the rigid arm secured to said hollow shaft, the spring arm secured to the shaft 372 and the intermediate arm connected to said spring arm in combination with the rock shafts 129*r*, 129*l*, rocked at each stroke of the machine and coupling devices for connecting said rock shafts to the shafts 372*r*, 372*l* when pins are projected from the pin carriages on both sides of the machine simultaneously, and the coupling devices connected to said intermediate arm for throwing into operation the metal pump. 77th. In a type forming machine, the combination with the pump cylinder and plunger, of an extensible pump-nozzle, substantially as described. 78th. In a type forming machine, the combination with the pump-cylinder and plunger, of an extensible nozzle and a rod by which the orifice of said nozzle is automatically cleaned, substantially as described. 79th. In a type forming machine, the combination with the pump-cylinder and plunger, of an extensible nozzle and a stationary rod by which the nozzle when retracted is automatically cleaned, substantially as described. 80th. In a type forming machine, the combination with the mould, of a metal pump having an extensible nozzle and means for connecting the nozzle to the mould and for disengaging it therefrom, substantially as described.

81st. In a type forming machine, the combination with a mould of a pump cylinder and plunger, an extensible pump nozzle and devices, substantially such as described for connecting the nozzle to the mould then operating the plunger to eject the metal and then disconnecting the nozzle from the mould, substantially as described. 82nd. In a type forming machine, the combination with a mould, of a pump-cylinder and plunger, an extensible pump-nozzle and automatic devices, substantially such as described, for connecting the nozzle to the mould, then operating the plunger to eject the metal and then disconnecting the nozzle from the mould, substantially as described. 83rd. In a type forming machine, the combination with a mould in which a type is formed, of a metal pump having an adjustable nozzle which fits within and partially fills the gate or channel leading to the interior of the mould, substantially as described and for the purpose specified. 84th. In a type forming machine, the combination with a mould, of a metal pump having an adjustable nozzle which fits within and partially fills the gate or channel leading to the interior of the mould and a plunger within the mould which when the nozzle of the pump retreats, advances and severs the type from the button or sprue piece left in the gate or channel of the mould and an ejector carried by said plunger for removing the button or sprue piece from the gate, substantially as described. 85th. In a type forming machine, the combination with the crucible or melting pot, of the pump-cylinder having the inlet and discharge ports, the extensible two-part nozzle with means for extending it and the plunger and means for operating it, substantially as described. 86th. In a type forming machine, the combination with the crucible or melting pot, of the pump cylinder having the inlet and discharge ports, the extensible two-part nozzle with means for extending it, the stationary cleaner rod for preventing the fouling of the nozzle and the plunger and means for operating it, substantially as described. 87th. In a type forming machine, the combination with the levers connected to the pump-nozzle and plunger respectively, of the reciprocating rods from which the motions of said levers are derived and the coupling devices for simultaneously connecting said levers to said reciprocating rods, substantially as described. 88th. In a type forming machine, the combination with the pump plunger, lever and pump nozzle lever and the respective reciprocating rods from which they derive motion, of the movable coupling bars, having pins at their lower ends for connecting the said rods and levers together and cross-pins at their upper ends, the stationary slotted plates leading to the interior of the mould and a plunger within the mould which when the nozzle of the pump retreats, advances and severs the type from the button or sprue piece left in the gate or channel of the mould, substantially as described. 89th. In a type forming machine, the combination with a mould, of a metal pump having an adjustable nozzle which fits within or partially fills the gate or channel leading to the interior of the mould and a plunger within the mould which when the nozzle of the pump retreats, advances and severs the type from the button or sprue piece left in the gate or channel of the mould and an ejector for removing the button or sprue piece from the gate, substantially as described. 90th. In a type forming machine, the combination with an adjustable mould, a metal injecting pump connected therewith, a cam and intermediate yielding connections for operating the pump plunger whereby the stroke of the plunger is automatically regulated to correspond to the size of the opening in the mould. 91st. In a type forming machine, the combination with the pump plunger and the lever connected to it, of the rod 390*a* connected to said lever, the rod 393, springs 396 through which the motion of rod 393 is communicated to rod 390, and the lever 403 and the cam 406 for operating it, substantially as described. 92nd. In a type forming machine, the combination with the guide into which the completed types are discharged a retreating support for said type and an advancing finger for transferring a completed line of type from the guide to the galley, substantially as described. 93rd. In a type forming machine, the combination with the guide in which the completed type are assembled, of means such as described, for opening the entrance to said guide for the admission of a type and closing said entrance after the type has been admitted, substantially as described. 94th. In a type forming machine, the combination of the guide in which the completed type are assembled, a finger at the entrance of said guide and mechanism for operating said finger to admit the type into the guide as they are discharged from the mould, substantially as described. 95th. In a type forming machine, the combination of the guide in which the completed type are assembled, a finger at the entrance of said guide and mechanism for operating said guide to admit the type into the guide as they are discharged from the mould and mechanism for sweeping said finger through the guide to carry the line of type into the galley, as set forth. 96th. In a type forming machine, the combination of the guide in which the completed type are assembled, a finger at the entrance of said guide, mechanism for operating said finger to admit the type into the guide as they are discharged from the mould, and a second yielding finger between which and the finger at the mouth of the type guide, the type are held, substantially as described. 97th. In a type forming machine, the combination of the guide in which the completed type are assembled, a finger at the entrance of said guide, mechanism for operating said finger to admit the type into the guide as they are discharged from the mould, and a second spring pressed yielding finger between which and the finger at the mouth of the type guide, the type are held, substantially as described. 98th. In a type forming machine, the combination of the guide in which the completed

type are assembled, a finger at the entrance of said guide, mechanism for operating said finger to admit the type into the guide as they are discharged from the mould and a second yielding finger between which and the finger at the mouth of the type guide, the type are held, and mechanism for sweeping the first mentioned finger through the type guide to carry the line of type into the galley. 99th. In a type forming machine, the combination of the guide in which the completed type are assembled a galley into which the assembled line of type is transferred, a finger in the type guide adapted to be advanced by the line of the type when the latter is swept into the galley, and a guide for guiding the finger across the galley. 100th. In a type forming machine, the combination of the guide in which the completed type are assembled, a galley into which the assembled line of type is transferred, a slotted finger in the type guide adapted to be advanced by the line of type when the latter is swept into the galley and a guide bar such as described, for guiding the slotted finger across the galley, substantially as described. 101st. In a type forming machine, the combination with the type guide, of the finger that normally stands at the entrance to said guide, the slide which carries said finger, the arm upon which the said slide is mounted and the mechanism for reciprocating said slide when the lever is in normal position. 102nd. In a type forming machine, the combination with the type guide, of the finger that normally stands at the entrance to said guide, the slide that carries said finger, the arm upon which said slide is mounted and the vibratory arm for reciprocating said slide when in normal position. 103rd. In a type forming machine, the combination with the mould, of the type guide, the finger that normally stands at the entrance to said guide, the slide which carries said finger, the arm upon which said slide is mounted and the vibratory arm for reciprocating the slide backward and forward, said lever operating to advance said slide through a yielding connection, whereby breakage of the finger is prevented should it strike the ejecting plunger of the mould before the latter has retreated. 104th. In a type forming machine, the combination with the mould, of the type guide, the finger that normally stands at the entrance to said guide, the slide which carries said finger, the arm upon which said slide is mounted, and the vibratory arm 458 having the lugs 456, 457 and operating upon a pin or projection on the slide to reciprocate the latter, the lug 457 being hinged and spring-pressed for the purpose specified. 105th. In a type forming machine, the combination with the type guide, of the slide 450 having a finger 451, the arm 448 upon which the slide is mounted, and mechanism substantially as described for vibrating said arm by the motion of the pin carriage on the left side of the machine, substantially as described. 106th. In a type forming machine, the combination with the type guide, of the arm 448 and the fingered slide carried by it, the arm 449 and its fingered slide and the spring operating to draw said arms together, substantially as described. 107th. In a type forming machine, the combination with the mould wheel, mechanism for advancing and stopping it, the type guide opposite the discharging mould, into which the type discharged, one after the other, from the moulds are assembled, a galley and mechanism, substantially as described, for sweeping the completed line of type into the galley, substantially as described. 108th. In a type forming machine, the combination with a die or matrix, the rotary mould wheel and its moulds, of each of which in turn the die or matrix forms a part, the metal-pump having an adjustable nozzle for connection to and disconnection from the several moulds in turn a type guide from which the type from the several moulds are discharged and assembled, a galley and mechanism, substantially as described for transferring the line of type from the type guide to the galley, substantially as described. 109th. In a type-forming machine, the combination with the series of dies or matrices, mechanism substantially such as described, for centring any one of said dies at the casting point, a rotary mould wheel and its moulds, means for bringing the centred die into co-operation with a mould, a pump for injecting molten metal into the mould at the casting point, and a guide or receptacle for receiving the type from the mould at the discharging point, substantially as described. 110th. In a type-forming machine, the combination with a series of dies or matrices, mechanism, substantially such as described, for centring any one of said dies at the casting point, a rotary mould wheel and its moulds, means for bringing the centred die into co-operation with the mould, a pump for injecting molten metal into the mould at the casting point, means for advancing and locking the mould wheel and a guide or receptacle for receiving the type from the receptacle at the discharging point. 111th. In a type forming machine, the combination with a series of dies or matrices, mechanism such as described for centring any one of said dies at the casting point, a rotary mould wheel and its moulds, means for bringing the centred die into co-operation with the mould, a pump for injecting molten metal into the mould at the casting point, a guide into which the types discharged one after the other from the moulds are assembled into lines, a galley mechanism for sweeping the assembled line of type from the type guide into the galley and mechanism for advancing the galley after it has received a line of type, substantially as described. 112th. In a type forming machine, the combination with a series of dies or matrices, mechanism substantially such as described for centring any one of said dies at the casting point, a rotary mould wheel and its moulds, mechanism for advancing and locking the mould wheel, means for bringing the centred die into co-operation with the mould, a metal injecting pump having an adjustable nozzle and means for connecting said nozzle to and dis-

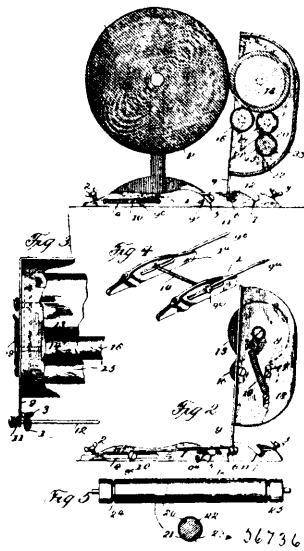
connecting it from the mould at the casting point, a guide for receiving the types discharged from the moulds one after another at the discharging point, a galley and mechanism for shifting the assembled line of type from the guides into the galley, substantially as described. 113th. In a type forming machine, the combination with the reciprocating bar 423, means for raising said bar by the motion of the pin carriage on the left side of the machine, the clutch members 436, 437, thrown into engagement as described, by the raising of the said bar 423, the hollow shaft 438 upon which the clutch member 437 is arranged, the laterally swinging type holding and transferring arms 458, 459, operated by the turning of said hollow shaft and type guide, substantially as described. 114th. In a type forming machine, the combination with the reciprocating bar 423, the connection 428, bell crank lever 429 and the pin carriage by which said bar is raised, the pin on arm 433 for engaging the recess in bar 423 to couple said arm and bar together, the rock shaft 434, arm 435, clutch members 436, 437, hollow shaft 438, type holding and transferring arms 458, 459 and type guide, substantially as described. 115th. In a type forming machine, the combination with the galley, the two racks thereon having oppositely inclined teeth, the vibrating arm 493, carrying the spring pressed pawl, the vertically sliding pawl connected to and operated from the swinging pawl through the pin 508, swinging bar 504, having inclined slot 507, connected swinging bar 503, having slot 509 and pin 510, substantially as described. 116th. In a type forming machine, the combination with the reciprocating slide 524, and the normally stationary slide 520, connected to the galley advancing and locking mechanism, of the slide 516, operated as described from the pin carriage on the left side of the machine, and the pins 518, 518^a, for connecting said slides 520 and 524, together as set forth. 117th. In a type forming machine, the combination with the block or support 517, the slide 516 having the transverse groove 516^a, the pin 518^a, 518^b, having the head 518 and projection 518^a with the slide 520, having the aperture 519 and the recess 519^a, for the head 518, of the pin, substantially as described, whereby when the slide 516, is retracted the pin and slide 520 will be held stationary by the engagement of the head of the pin with the block 517 and when said slide 516 is projected said pin will be disengaged from the block and free to travel back and forth with the slide 520, substantially as described. 118th. In a type forming machine, the combination of the reciprocating slide 524, the slide 520 and the galley advancing mechanism connected to it, the slide 516 and the pin 518, 518^b, connecting rod 515, spring 529, arm 514 geared to the rock shaft 434 reciprocating bar 423, and means for engaging it with the rock shaft 434 to turn the latter, substantially as described. 119th. In a type forming machine, the combination with the grooved guiding rail, co-operating adjustable rail upon which the galley rests and by which it is guided, the adjustable galley supporting rail in combination with the screw shafts working in nuts upon said rail, the common shaft with which said screw shafts are geared and means for turning said shaft to effect the adjustment of said rail. 120th. In a type forming machine, the combination of a record strip or controller, a series of dies, mechanism actuated from the controller for bringing any one of the dies to a centering point, an adjustable mould of which the centered die forms a part, mechanism also actuated from the controller for adjusting the mould, and mechanism for injecting molten metal into the adjusted mould, substantially as described. 121st. In a type forming machine, the combination of a record strip or controller, a series of dies, mechanism for bringing any one of the dies to a centering point, an adjustable mould of which the centered die forms a part, mechanism actuated from the controller for adjusting the mould to form normal type, mechanism also actuated from the controller for adjusting the mould to form justifying type, and means for injecting molten metal into the adjusted mould, substantially as described. 122nd. In a type forming machine, the combination of a record strip or controller, a series of dies, mechanism actuated by the controller for bringing any one of the dies to a centering point, a mould of which the centered die forms a part, a movable plunger in said mould, mechanism actuated from the controller for regulating the adjustment of said plunger and mechanism for injecting molten metal into the mould after adjustment, substantially as described. 123rd. In a type forming machine, the combination of a record strip or controller, a series of dies, mechanism actuated by the controller for bringing any one of the dies to a centering point, a mould of which the centered die forms a part, a movable plunger in said mould, mechanism actuated from the controller for regulating the adjustment of said plunger to form normal type, mechanism also actuated by the controller for adjusting the plunger to form justifying type, and means for injecting molten metal into the adjusted mould, substantially as described.

No. 56,736. Printing Attachment for Roll Paper Holders. (*Attache à imprimer pour appareil à tenir les rouleaux de papier.*)

William B. Rust, Portland, Oregon, U.S.A., 21st July, 1897; 6 years. (Filed 17th April, 1897.)

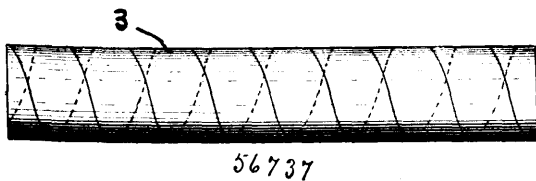
Claim.—1st. In a roll paper printing attachment in combination, the frame 9, and connecting rods 10, 12, mounted upon a suitable support adapted to be affixed to a table or other surface and to admit of the frame being laterally shifted thereon to adjust the device to the face of the paper roll, the case 8, and the printing mechanism mounted therein, and comprising the printing roll 13,

the inking rolls 14, 15, and the blotting roll 16, the bearings for the rolls 13, 16, being fixed, and the rolls 14 and 15 being journalled



in slotted bearings, and adapted to bear against the surface of said printing roll, substantially as described. 2nd. In a roll paper printing attachment, in combination, the frame 9, and connecting rods 10, 12, mounted upon the slats 1 and 1a, the case 8, containing the rolls 13, 14, 15, 16, the slotted bearings 17, 18, for the rolls 14, 15, and the springs 19, for the purpose specified, the inking rolls, 14, 15, having longitudinal and peripheral slots 20 to 23 and 24, 25, the former containing some absorbent material, substantially as set forth.

No. 56,737. Wood Tubing. (Tubc en bois.)



Richard Bond Harrell, Lakeview, New York, U.S.A., 21st July, 1897; 6 years. (Filed 23rd March, 1897.)

Claim.—1st. As a new article of manufacture, a tube constructed of two or more superimposed layers of wood or veneering. 2nd. A wooden tube, constructed of two or more superimposed layers of wood, having their grain running in different directions. 3rd. A wooden tube, consisting of a supporting core 1, layers 2 and 3, spirally wound thereon so that their grain runs in different directions to each other and to the supporting core and an outer layer 4, substantially as described. 4th. A wooden tube, consisting of a supporting core 1, layers 2 and 3, spirally wound thereon so that their grain runs in different directions to each other and to the supporting core, an outer layer 4, and an outer covering of water-proof material, substantially as described.

No. 56,738. Process of Making Starch.

(*Procédé de fabrication d'empois.*)

Reinhold Goernemann, Zahau, Prussia, Germany, 22nd July, 1897; 6 years. (Filed 27th January, 1897.)

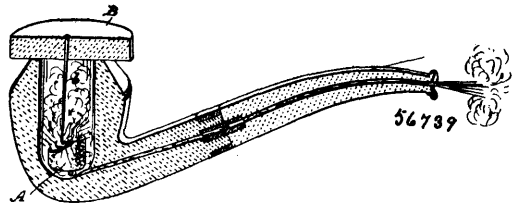
Claim.—The process for preparing radiant starch from maize characterized thereby, that the raw material is milled fine with access of water, is saturated with sulphurous acid gas, and after subsequent washing and a repeated saturation with sulphurous acid gas, refined in shaking sieves and forced in a centrifugal machine, into blocks, which are closed from the air heated strongly for such a time as will cause the starch to crystallize in the radiant form.

No. 56,739. Means for Cleaning Pipes, Catheters etc. (Moyen de nettoyer les pipes, catheters etc.)

Kirke Stanley, Montreal, Quebec, Canada, 22nd July, 1897; 6 years. (Filed 7th April, 1897.)

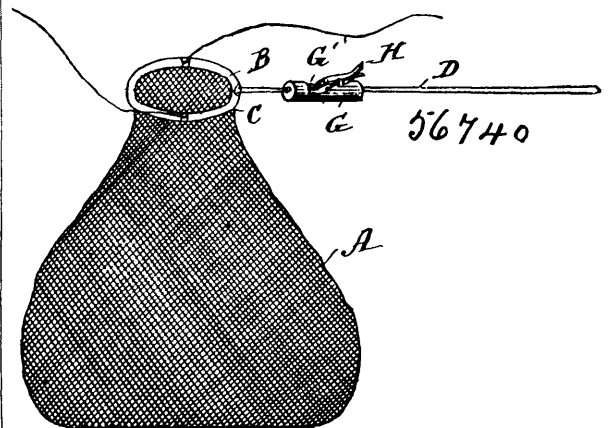
Claim.—1st. The method of cleansing tobacco pipes, catheters and other similar articles, consisting of introducing into the same a

heated gas from an ignited mildly explosive composition, as set forth. 2nd. The method of cleansing tobacco pipes, catheters and



other articles of a similar nature, consisting in introducing into the same a heated gas from a composition of phosphorous, nitre, manganese peroxide, gum arabic and aqua, as set forth. 3rd. The method of cleansing tobacco pipes, catheters and other similar articles, consisting in introducing into a bowl provided with a suitable stem, a solidified lump composed of phosphorous, nitre, manganese peroxide, gum arabic and aqua, closing the bowl and igniting the composition by a suitable pin extending downwardly from the cover, or igniting it otherwise, and thereby producing a heated gas, as and for the purpose specified. 4th. In a method such as described, the composition of phosphorous, nitre, manganese peroxide, gum arabic and aqua, substantially in the proportions specified and for the purpose set forth. 5th. In a method such as described, the composition of phosphorous, nitre, manganese peroxide, gum arabic, aqua, gum benison and cascarilla bark, substantially in the proportions specified and for the purpose set forth.

No. 56,740. Fish Holder. (Sic à poisson.)



Lawrence D. Garnhart, Fairmont, Minnesota, U.S.A., 22nd July, 1897; 6 years. (Filed 1st May, 1897.)

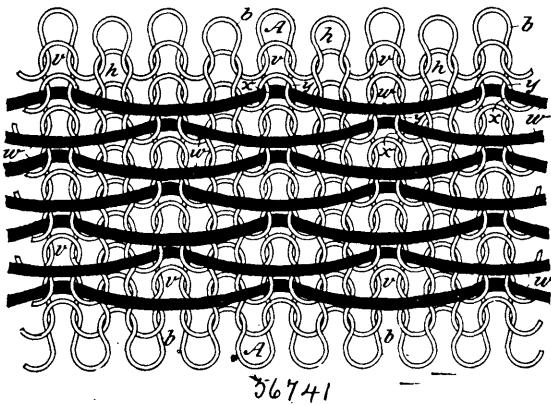
Claim.—1st. In a fish-holder, the combination of a bag made of net-like material, and provided with a small mouth, of a draw-string passing loosely twice around the neck, and additional and supplemental strings located on opposite sides of the mouth, and adapted for opening the bag. 2nd. In a fish-holder, the combination with a bag made of net-like material, of loops connected to the bag on opposite sides of the neck thereof, a draw-string passing through said loops, and doubly looped around the neck of the bag, and a clamp slidable on the draw-string, and adapted to keep the mouth of the bag locked.

No. 56,741. Knit Fabrics with Backing, and Machine for Producing the same. (Tissue à tricot cotelé et appareil de fabrication.)

David C. Bellis, Elizabeth, New Jersey, U.S.A., 22nd July, 1897; 6 years. (Filed 22nd April, 1897.)

Claim.—1st. A ribbed knit fabric provided with a backing consisting of threads extending from one outer wale to another and which are interlaced on the inside of the fabric between the lower part of one loop and the upper part of an adjoining loop lying in each of such outer wales of the ribbed fabric, substantially as shown and described. 2nd. A ribbed knit fabric in combination with a backing consisting of threads extending from one outer wale to another and which are interlaced on the inside of the fabric between the lower part of one loop and the upper part of an adjoining loop, lying in each of such outer wales of the ribbed fabric, substantially as shown and described. 3rd. A knitting machine having two sets of needles and cams therefor for producing ribbed fabrics, jacks or loopers, cams and a bed therefor operated by the driving mechanism of the said machine to interlace a supplemental thread with the meshes produced by the said needles, substantially as and for the purpose set forth. 4th. A circular knitting machine having two

sets of needles and cams therefor, in combination with a conical jack bed supported centrally of the machine, jacks or loopers

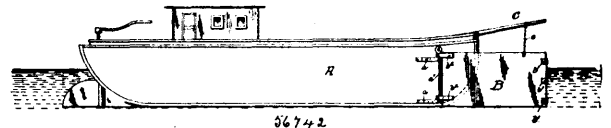


mounted in said bed, and cams adapted to operate the jacks or loopers in conjunction with certain of the said needles, substantially as and for the purposes set forth. 5th. A circular knitting machine having two sets of needles, needle cylinder, cam cylinder, needle dial and cam dial together with jacks or loopers operatively mounted in grooves of a jack bed fastened to the needle dial, and cams adapted to operate the said jacks or loopers in conjunction with the said needles to interlace a supplemental thread with the meshes produced by the said needles, substantially as and for the purposes set forth. 6th. A circular knitting machine having two sets of needles, a needle cylinder, cam cylinder, needle dial and cam dial, together with two sets of jacks operatively mounted in grooves of a jack bed fastened to the needle dial, and two sets of cams each adapted to operate in conjunction with certain of the said needles, substantially as and for the purposes set forth. 7th. A knitting machine for producing ribbed knit fabrics having two sets of needles and cams therefor, and jacks or loopers operated by cams to bring an extra thread from the inside of the machine over certain of the needles, substantially as and for the purposes set forth. 8th. A circular knitting machine having two sets of needles and means for operating the same, a system of loopers or jacks operated by cases to interlace a supplemental thread with the meshes produced by the said needles and means for supplying the said loopers with yarn, substantially as and for the purposes set forth. 9th. In a circular-rib knitting machine the combination of two sets of needles, a cylinder and a dial therefor, a system of loopers or jacks, guided in slots of the said dial, a bed for said loopers or jacks and means for operating the said needles and loopers, substantially as and for the purposes set forth. 10th. In a circular knitting machine the combination of two sets of needles, a system of loopers or jacks and means for operating said needles and loopers, a hollow spindle supporting a sleeve, a needle dial and a bed for the system of loopers or jacks, the spindle adapted to lead a supplemental thread from the outside of the machine to said needles, substantially as and for the purposes set forth. 11th. A knitting machine for producing ribbed knit fabric, comprising a rotating needle cylinder and needle dial, a stationary cam cylinder and cam dial, said needle cylinder driven from a main shaft by bevel gears, a gear wheel fastened to said needle cylinder and meshing with pinions, each fastened to one end of a shaft, pinions adjustably held on the other ends of said shafts and meshing with a gear wheel attached to a sleeve supporting the said needle dial, a jack bed attached to said dial and rotating therewith, and a hollow spindle carried by a cross arm of the machine, for guiding the said sleeve and supporting the cam beds for the said jacks, substantially as and for the purposes set forth. 12th. A knitting machine for producing ribbed knit fabrics, comprising a rotating needle cylinder and needle dial, a stationary cam cylinder and cam dial, two posts, a cross arm supported thereby, said dial adjustably held on said posts, a hollow stationary spindle suspended centrally from the said arm, jack actuating cams secured to said hollow spindle, a sleeve surrounding said spindle and supported thereby, a jack bed and said needle dial fastened to said sleeve and receiving rotary motion from the rotating needle cylinder by gearing, jacks slidingly mounted in the rotating jack bed and actuated by the said jack cams to operate in conjunction with certain of said needles, substantially as and for the purposes set forth. 13th. A knitting machine for producing ribbed knit fabrics comprising two sets of needles, a needle and a cam cylinder, and needle and cam dial, two posts, a cross arm supported thereby, said cam dial adjustably held to said posts, a hollow spindle suspended from said arm and surrounded by a sleeve carrying the needle dial and a jack bed, jacks slidingly mounted in the said jack bed, a jack cam bed fastened to the lower end of the hollow spindle, which is provided with one or more thread guides, and a removable section by which the jacks may be removed from the said bed, substantially as and for the purposes set forth. 14th. A knitting machine for producing ribbed knit fabrics, comprising a rotating needle cylinder and needle dial, a stationary cam cylinder

and cam dial, said needle cylinder driven from a main shaft by bevel gears, a gear wheel fastened to said needle cylinder and meshing with a pinion fastened to one end of a shaft journaled in a bracket attached to the machine bed, a pinion having a projection mounted loosely on the other end of said shaft, a forked arm attached to said shaft and having at its forked ends set screws, which impinge against the projection of the loose pinion, two posts attached to the base of the machine, a cross arm supported thereby, said cam dial held adjustably to said posts, a hollow central spindle suspended from the cross arm, one or more jack cam beds fastened to the lower end thereof, a rotatable sleeve surrounding said spindle and supported by said jack cam beds, a jack bed and said needle dial attached to said sleeve, a gear wheel also secured to said sleeve and meshing with the loose pinion before mentioned, and jacks slidingly mounted in said jack bed, substantially as and for the purposes set forth. 15th. In a knitting machine, the combination with a needle cylinder, needle dial and jack bed, of a ring supported centrally within the machine and having its peripheral edge between the edges of the needle dial and needle cylinder, substantially as and for the purposes set forth. 16th. In a knitting machine, the combination with a needle cylinder, needle dial and jack bed, of a ring supported centrally within the machine and having its upper peripheral edge notched for the reception and guidance of jacks slidingly held in said jack bed, substantially as and for the purposes set forth. 17th. In a knitting machine, the combination with a needle cylinder, a needle dial, jack bed, needles, jacks and cams therefor, of a ring supported centrally within the machine and having its upper peripheral edge between the edges of the needle dial and needle cylinder, said upper ring edge provided with a rounded-off rim and notches for the reception and guidance of jacks slidingly mounted in the said jack bed, substantially as and for the purposes set forth. 18th. In a knitting machine, the combination with a needle cylinder, needle dial, jack bed, needles and jacks therefor and means for operating the same, of a ring supported on a hollow spindle held centrally within the machine, thread holes in the lower part of the ring, said ring having its upper peripheral edge notched and rounded off on the inner side, substantially as and for the purposes set forth. 19th. A knitting machine for producing ribbed knit fabrics, having two sets of needles and cams therefor, jacks or loopers operated by cams to bring an extra thread from the inside of the machine over certain of the needles, in combination with a ring supported centrally within the machine, substantially as and for the purposes set forth.

No. 56,742. False Bow for Canal Boats.

(*Avant poure de barges.*)



John Geoffrey Foster, Philadelphia, Pennsylvania, U.S.A., 22nd July, 1897; 6 years. (Filed 1st May, 1897.)

Claim.—1st. A detachable bow for boats, comprising two plates hinged together at one end so that they may be expanded to approximately V-shape, and means for removably securing said bow in position upon the front of the boat. 2nd. A detachable bow for boats, comprising two plates hinged together at one end so that they may be expanded into approximately a V-shape, of a spar or bowsprit mounted upon the boat and adapted to support said bow in position, substantially as described. 3rd. A detachable bow for boats, comprising two plates hinged together at their forward edges and provided with apertured lugs at their rear edges, devices mounted upon the boat and adapted to engage said apertured lugs, and a spar or bowsprit also mounted upon the boat and adapted to support the forward hinged edges of said plates, substantially as described.

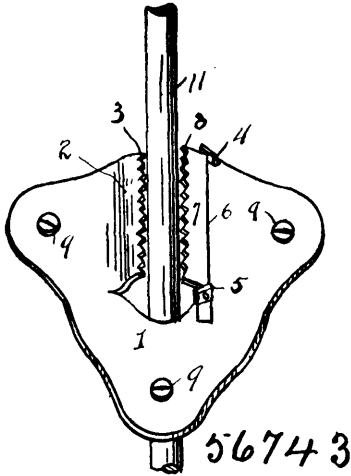
No. 56,743. Sewing Machine Brake.

(*Frein de machines à coudre.*)

Oliver A. Morrow, White Hall, Illinois, U.S.A., 22nd July, 1897; 6 years. (Filed 7th May, 1897.)

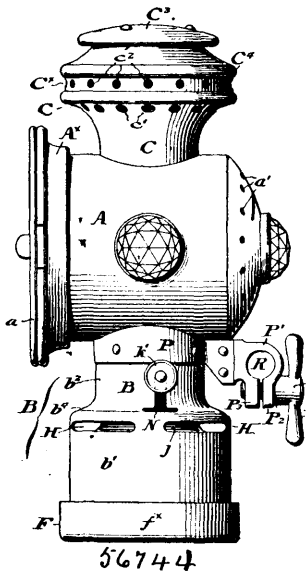
Claim.—1st. A brake of the character set forth, consisting of a base plate having spurs along one of its edges and a movable member adapted to swing in the direction of said spurs by the back turning of a belt, substantially as set forth. 2nd. A brake of the character set forth, consisting of a base plate having a longitudinal opening therein, one edge of said opening being provided with spurs, said plate having ears 4 and 5 formed integral therewith, the rear edges of said ears being turned inward, the leaf 7 provided with arms adapted to

extend through perforations in said ears for the purpose of pivotal connection, said leaf also having a spurred edge, the plate provided



with apertures for attachment with a machine table, and the device adapted to operate substantially as and for the purpose set forth.

No. 56,744. Lantern. (Lanterne.)



Edwin M. Rosenbluth, Philadelphia, Pennsylvania, U.S.A., 22nd July, 1897; 6 years. (Filed 14th May, 1897.)

Claim.—1st. A vehicle lamp, or lantern, having a combustion chamber, the rear wall of which is provided with a lens or jewel, and with a series of small air openings, and a reflector mounted within said combustion chamber and extending completely across the same, said reflector being provided with a light opening of large diameter, and with a circular series of small air openings, substantially as set forth. 2nd. A bicycle lantern having a combustion chamber the rear wall of which is provided with a lens or jewel, and a series of small air openings, in combination with a reflector mounted within said chamber in the vicinity of said rear wall, the said reflector being provided with a flange or rim which makes contact with the circumferential wall of the combustion chamber—with a central light opening—and with a circumferential series of small openings, substantially as set forth. 3rd. In a vehicle lamp or lantern, in combination with a combustion chamber, a lamp chamber secured to its lower portion, a wick tube opening formed in the floor of the combustion chamber, a series of air openings formed in the wall of the lamp chamber above the space therein occupied by the body of the lamp, a draft plate mounted in the lamp chamber and extending to the wall thereof, and embodying apertures out of line with said wick tube opening, substantially as set forth. 4th. A lamp or lantern provided with a tapped neck, in combination with a burner adapted to engage with the tapped neck, said burner being provided with a wick tube and a wick shaft, both ends of said shaft

projecting beyond the wall of the burner, and said shaft being so located in said burner that when the burner is screwed within the neck of the lamp, both ends of said shaft encounter said neck whereby said shaft is clamped against undue rotation, substantially as set forth. 5th. In a bicycle lamp, in combination with a combustion chamber, a lamp chamber depending from said combustion chamber, a wick tube opening which places said chambers in communication, a lamp which so closely fits for a portion of its length within said lamp chamber, as to be self-supporting therein, and a series of subdividing air-openings formed in the wall of said lamp chamber above the area in which the lamp closely fits, substantially as set forth. 6th. In a bicycle lamp, in combination with a combustion chamber, a lamp chamber depending from said combustion chamber, a wick tube opening which places said chambers in communication, a lamp which closely fits for a portion of its length within said lamp chamber, a series of subdividing air openings formed in the wall of said lamp chamber above the area in which said lamp closely fits, and an annular perforated draft plate formed as a rim or flange on the burner, and disposed between the lamp and the wall of the lamp chamber above said air openings, substantially as set forth. 7th. In a bicycle lamp, in combination with a combustion chamber, a lamp chamber formed with a neck and a body, depending from said combustion chamber, and provided with subdividing air openings in its body, a lamp provided with a burner and a wick tube which latter extends through a wick tube opening formed in the bottom of the combustion chamber, and an annular draft plate formed as a rim or flange on the burner, and having air passages, and in contact as to its margin with the neck of the lamp chamber, substantially as set forth. 8th. In a bicycle lamp, in combination with a combustion chamber, a lamp chamber formed with a neck and a body, depending from said combustion chamber, and provided with subdividing air-openings in its body, a lamp provided with a burner and a wick tube which latter extends through a wick tube opening formed in the bottom of the combustion chamber, and an annular draft plate carried by said burner and having air passages consisting of apertures and marginal serrations, and in contact as to its margin with the neck of the lamp chamber, substantially as set forth. 9th. In a lantern, in combination with an open-bottomed lamp chamber, provided upon its lower exterior portion with a stud or projection, an oil collecting lamp retaining clamp consisting of a plate having a rim adapted to enclose the lower portion of said lamp chamber, which rim embodies a slot adapted to take over said stud or projection, and a flat spring secured to the said plate, substantially as set forth. 10th. In combination, a bicycle lantern, and a clamp adapted to be attached to the frame of a vehicle and to support said lantern, a collar or split ring attached to one of said devices, and a horizontally extending shaft attached to the other of said devices, said collar being adapted to be seated upon said shaft, and means for enlarging and diminishing the size of said collar, to alternately clasp and release said shaft, the arrangement being such that the lantern may be quickly and easily shifted to various positions of rotative adjustment, substantially as set forth. 11th. A vehicle lamp or lantern provided with a collar or split ring firmly secured to its body, means for drawing together or apart the ends of said collar to enlarge or diminish the diameter of the same, a horizontal transversely-extending shaft upon which said collar is adapted to be seated, and to be locked thereto by drawing together the ends of said collar, said lamp or lantern being thereby adapted to be secured in various positions of rotative adjustment upon said shaft, and means for securing said shaft to a vehicle, substantially as set forth. 12th. In a bicycle lamp, in combination with a combustion chamber, a lamp chamber, depending from said combustion chamber, a wick tube opening which places said chambers in communication, a lamp mounted in said lamp chamber and having a wick tube extending through said wick tube opening, an annular space between the upper portion of the lamp and the lamp chamber, subdividing air openings formed in said lamp chamber and an opening into said annular space, a draft plate embodying a circular series of perforations and serrations, said draft plate being disposed between the subdividing air openings and the wick tube openings and said circular series of openings being of greater diameter than the wick tube opening, substantially as set forth. 13th. In combination, a bracket for a lantern supporting clamp, said bracket consisting of a shank having a cylindrical body and an extended hook extremity and a second shank hingedly connected to the shank first named and having a corresponding hook extremity and a screw controlling the approach and separation of said hook extremities, substantially as set forth. 14th. A bracket for a lantern supporting clamp, said bracket consisting of a shank having a cylindrical body and an extended hook extremity, and a second shank hingedly connected to the shank first named and having a corresponding hook extremity, and a screw controlling the approach and separation of said hook extremities, in combination with a lantern provided with a cylindrical bearing adapted to be seated upon said cylindrical shank, substantially as set forth. 15th. A bracket or a lantern supporting clamp, said bracket consisting of a shaft having a cylindrical body and an extended hook extremity and a second shank hingedly connected to the shank first named and having a corresponding hook extremity, a screw controlling the approach and separation of said hook extremities, in combination with a lantern provided with a cylindrical bearing adapted to be seated upon said cylindrical shank, and means for increasing and diminishing the diameter of said bearing, substantially as set forth. 16th. In a

vehicle lantern, in combination, a combustion chamber, a lamp chamber connected with or formed as a depending continuation of said combustion chamber, and consisting of a body the neck or upper end of which is of reduced diameter and embodies a slot, a lamp removably mounted or contained in said lamp chamber and so arranged that its wick shaft projects through said slot, and a cap or base adapted to be applied to the lower end of the lamp chamber and when seated thereon to force the lamp upward to cause its wick shaft to bear against the upper edge of the slot, substantially as set forth.

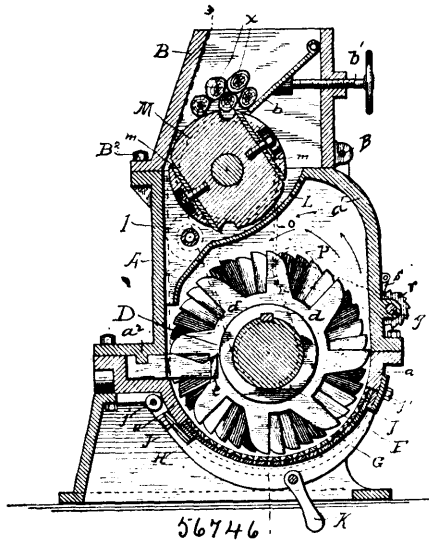
No. 56,745. Pen Holder. (Porte-plumes.)



William Cox Mulder, Darrow, Louisiana, U.S.A., 22nd July, 1897; 6 years. (Filed 14th May, 1897.)

Claim.—1st. In a pen holder, the combination with a stationary cylindrical pen socket, of a movable cylindrical clamp fitting within said socket, a spring which keeps the clamp normally open, and means for closing the clamp to hold a pen in the socket. 2nd. In a pen holder, the combination with a pen socket which is cut away, and is also provided with limits stop near its outer end, said socket being provided with a longitudinally extending groove of a substantially cylindrical clamp having a slit extending from end to end thereof, a spring wire connected to the clamp and adapted to lie in the groove, having its other end fixed, said spring tending to keep the clamp out of the socket, and a sleeve slidable on the socket, the wire, and the clamp, whereby the latter may be held in the socket.

No. 56,746. Wood Pulp Making Machine. (Machine à pulpe.)

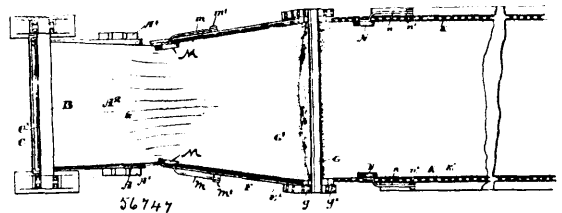


Joseph James Harrell, Chicago, Illinois, U.S.A., 22nd July, 1897; 6 years. (Filed 15th May, 1897.)

Claim.—1st. A machine for making wood pulp from wood chips comprising a suitable receiving vessel or casing, means for providing a supply of water therefor, a shaft journaled in said casing, means for rotating said shaft, a plurality of radiating arms forming beaters secured to said shaft and spaced at short distances apart, a plurality of stationary arms comprising knives arranged to project between said beaters, an adjustable mesh screen arranged in said casing for the pulp to flow through, and means for manually changing at will the gauge of the mesh of said screen, substantially as described. 2nd. In a machine for manufacturing wood pulp, the combination with the receiving casing, of a shaft journaled therein, a plurality of discs having radiating arms arranged in spiral line on said shaft, a plurality of knives secured to said casing and extending between into the interstices of the said beaters in interdigitative order, means for rotating said shaft and beaters, and a recess in said casing parallel with said shaft and adapted for a return passage for the pulp from the feed of said spirally arranged beaters, substantially as described. 3rd. In a wood pulp making machine, the combination with the casing and the shaft of the beaters arranged spirally thereon, a spacing collar between each beater, a plurality of knives secured to said casing and interposed between the rotary paths of said beaters, a spacing block between adjacent knives, means for preventing the lateral spring of the free ends of said knives into the

path of said beaters, substantially as described. 4th. The combination with the divided casing and the shaft, of the beaters arranged spirally thereon, the spacing collars, the knives between said beaters, means for securing said knives to the casing and a transverse notch or key-way in each of said knives arranged in alignment with one another in said casing and a depending portion on said casing adapted to synchronously fit into said key-way of said knives, as and for the purpose specified. 5th. The combination in a pulp making machine of a casing or pulp chamber substantially cylindrical in shape divided horizontally into two parts and having a feed inlet and a screened outlet, a shaft journaled therein, pulley fly wheels thereon, a plurality of discs keyed to said shaft, spacing collars between each two of said discs, arms comprising beaters integral with said discs, a plurality of knives interposing said beaters and discs, means for spacing said knives to register with the intervals between said beaters, means for securing said knives to said casing and a lateral support for the free ends of said knives, substantially as described. 6th. The combination of the pulp receiving chamber, the main shaft, the fly wheels, the rotary beaters fixed to said shaft and the stationary knives, of an adjustable mesh, flushing screen comprising a screen fixed to a discharged outlet formed in said pulp chamber, a second screen overlapping the fixed screen and secured in contact therewith and having its apertures registering with those of said fixed screen, means for moving said second screen at will over the surface of said fixed screen and means for gauging the movement of said second screen in both directions whereby the sizes of said aperture are instantly reduced to any mesh required for the discharge of pulp from said chamber of any desired fineness and are instantly increased to full size to flush said screen when it becomes clogged, substantially as described. 7th. In a pulp making machine an adjustable mesh, flushing screen comprising two screens in contact with one another of like mesh and arranged to register with one another, having one of said screens fixed and the other movable a distance equal to the breadth of its meshes on the surface of the other, means for moving said screen at will and means for defining and maintaining a selectable gauge of mesh and for instantly increasing the apertures at will to flush the apertures and for returning instantly to the normal mesh, substantially as described. 8th. In a wood pulp-mill the combination with a plurality of beaters mounted upon a horizontal shaft, a case for inclosing such beaters, and having an enlarged chamber above the beaters to receive the pulp thrown therefrom by centrifugal action, the roof of such chamber being curved to direct the pulp forward in the direction of rotation of the beaters. 9th. In a wood pulp-mill the combination with a plurality of rotatable beaters, and a casing for inclosing such beaters of a slotted discharge screen, the bars of which have their inner faces bevelled outwardly in the direction oppositely to the direction of rotation of the beaters.

No. 56,747. Apparatus for Sizing Cloths. (Appareil pour l'ajustage des vêtements.)



Robert E. Menzie, Toronto, Ontario, Canada, 22nd July, 1897; 6 years. (Filed, 5th May, 1897.)

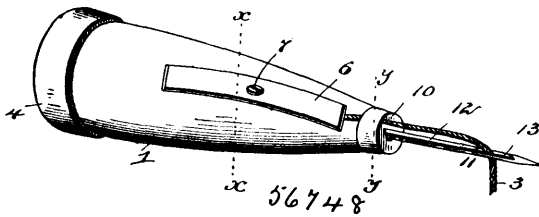
Claim.—1st. The method of sizing cloth herein described, consisting of first dampening the cloth as it passes from the roll by a suitable size, then carrying it onward and stretching it in its course to the greatest extent possible, then applying the size to the stretched cloth so as to fill up the interstices thereof, then allowing it to naturally contract while damp, and carrying it forward and drying it in its major contracted width, as and for the purpose specified. 2nd. An apparatus such as described, comprising the feeding rollers and sizing trough for primarily dampening the cloth, the obliquely set sprocket carrying chains and means thereon for holding the edges of the cloth as it becomes expanded, the depressing bar and roller forming a receptacle at the front of the bar for the size, the supplemental roller behind the bar and the carrying means for conveying the cloth away in its major contracted width, as and for the purpose specified. 3rd. In an apparatus such as described, a depressing bar or doctor located between the expanding tentering frame and the carrying tentering frame and designed to hold down the cloth below the normal level thereof and form a receptacle to contain the size, as and for the purpose specified.

No. 56,748. Awl. (Aiguille.)

George F. Summers, Plasanton, Kansas, U.S.A., 22nd July, 1897; 6 years. (Filed 17th May, 1897.)

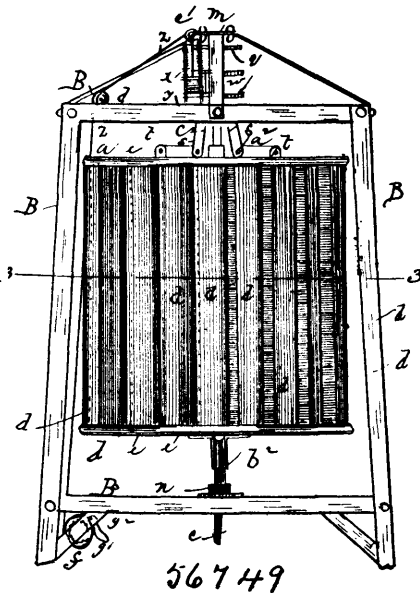
Claim.—1st. The combination with a handle provided with a chamber to receive a supply of thread, and having a passage leading

from the inner end of the chamber to the outer surface of the handle through which the thread passes, of an awl attached to the



handle and provided with an eye at its outer end to receive the thread and a tension device consisting of a bowed strip of spring metal secured intermediate its ends to the handle, one end of the strip fitting in a recess in the handle and the other end bearing on the thread to regulate its tension, substantially as described. 2nd. The combination with a handle provided with a chamber to receive a supply of thread and having a passage leading from the inner end of the chamber to the outer surface of the handle through which the thread passes, of an awl attached to the front end of the handle, a ferrule on the front end of the handle, and a tension device engaging the thread between the said passage and the ferrule, the awl having an eye at its outer end and a longitudinal groove extending from the eye to the handle, and the handle having a groove at its outer end beneath the ferrule through which the thread passes to the awl, the grooves in the awl and handle being in alignment with each other and with the said passage, substantially as described.

No. 56,749. Wind Wheel. (Roue à vent.)



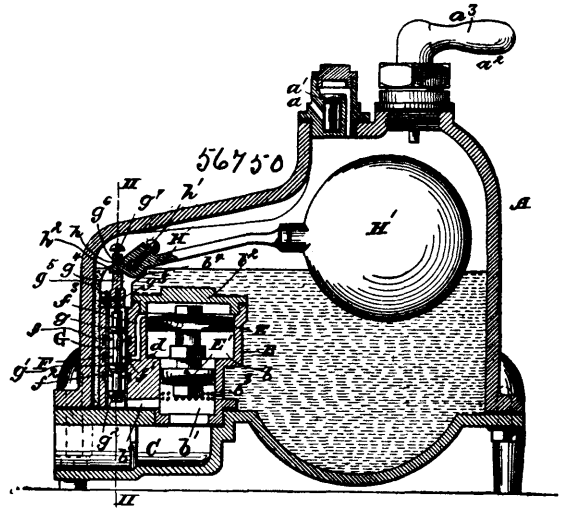
John Fletcher Ford, Baltimore, Maryland, U.S.A., 22nd July, 1897; 6 years. (Filed 22nd May, 1897.)

Claim.—1st. In a wind-wheel mounted on a vertical shaft and having peripheral pivoted vanes, the combination of a ring surrounding, but unconnected with, and laterally adjustable to the said shaft, rods connecting the ring to the vanes respectively, and means for supporting the said ring, substantially as described. 2nd. In a wind-wheel mounted on a vertical shaft and having peripheral pivoted vanes, the combination of a ring surrounding, but unconnected with, and laterally adjustable to the said shaft, rods connecting the ring to the vanes respectively, the said rods being aligned tangentially to the shaft, and means for supporting the ring, substantially as described. 3rd. In a wind-wheel mounted on a vertical shaft, the combination of a ring surrounding, but unconnected with, and laterally adjustable to the said shaft, and oppositely inclined rods attached to the ring and movably dependent from the wheel, substantially as described. 4th. In a wind-wheel mounted on a vertical shaft, and having peripheral pivoted vanes, the combination of a ring surrounding, but unconnected with, and laterally adjustable to the said shaft, the said ring having upper facial projections, rods connecting the ring to the vanes respectively, and means for supporting the ring, substantially as described. 5th. In a wind-wheel mounted on a vertical shaft and having peripheral pivoted vanes, the combination of a ring surrounding, but unconnected with, and laterally adjustable to the said shaft, rods connecting the ring

to the vanes respectively, means for supporting the ring, a sectional cone adjacent to the ring and adapted to slide longitudinally on the said shaft, and means for applying the centrifugal force of the wheel to reciprocate the cone, substantially as and for the purpose described. 6th. In a wind-wheel mounted on a vertical shaft and having peripheral pivoted vanes, the combination of a ring surrounding, but unconnected with, and laterally adjustable to the said shaft, rods connecting the ring to the vanes respectively, means for supporting the ring, a sectional cone adjacent to the ring and adapted to slide longitudinally on the said shaft, and means for moving the cone to and from the ring, substantially as described.

No. 56,750. Hydraulic Air Compressor.

(Machine hydraulique à comprimer l'air.)

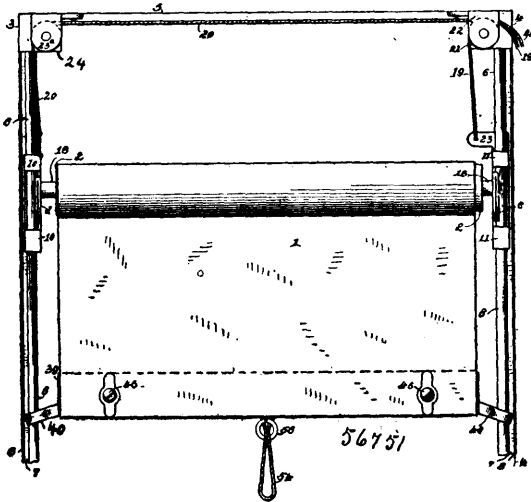


Joseph Henry Champ, Cleveland, Ohio, U.S.A., 22nd July, 1897; 6 years. (Filed 18th May, 1897.)

Claim.—1st. In a hydraulic air-compressor, the combination with a main-valve chamber having a water connection with the air and water chamber, and a primary-valve chamber, of a water-channel between said two valve-chambers such channel being independent of said water connection between the main-valve chamber and the air and water chamber, substantially as set forth. 2nd. In a hydraulic air-compressor, the combination with a main-valve chamber, and a primary-valve chamber, of a water channel between the two, such channel connecting with the main-valve chamber at a point of the latter nearer the waste-water outlet than is the water connection of the main-valve chamber with the air and water chamber, substantially as set forth. 3rd. In a hydraulic air compressor, the combination with a main-valve chamber, and a primary-valve chamber, of a water-channel between the two, such channel connecting with the main-valve chamber at a point of the latter farther from the supply-water inlet than is the water connection of the main-valve chamber with the air and water chamber, substantially as set forth. 4th. In a hydraulic air-compressor, the combination of an air and water chamber, a main-valve chamber with its main valve, a piston-chamber with its piston connected to such valve, a primary valve chamber with its primary valve, and a supply-water inlet between such main valve and its connected piston, together with a water-channel connecting one end of the primary-valve chamber with the main-valve chamber at a point of the latter nearer the waste-water outlet and farther from the supply-water inlet than is the water connection of such main-valve chamber with the air and water chamber, substantially as set forth. 5th. In a hydraulic air-compressor, the combination of an air and water chamber, a main-valve chamber with its main valve, a piston chamber with its piston connected to such valve, a primary-valve chamber with its primary-valve, said valves and piston having reciprocating vertical movement, together with a water channel connected at its upper extremity with said piston-chamber at a point constantly above the piston, a constant supply-water inlet between the piston and the main valve, water connection between the main-valve chamber and the air and water chamber, an independent water-channel connecting together the lower portions of the two valve-chambers at a point of the main-valve chamber below its water connection with the air and water chamber, and a waste-water outlet leading from the main-valve chamber below said independent water channel, substantially as set forth. 6th. In a hydraulic air-compressor, the combination of an air and water chamber, a valve-casing formed with a large piston-chamber having communication at its lower end with the water-inlet, and a smaller valve-chamber having a port which communicates with the air and water chamber, and a water outlet at its bottom, said piston-chamber and valve-chamber being axially aligned and communicating with each other;

a primary-valve chamber having a distributing port at its middle which communicates with the upper end of the piston-chamber, and an outlet-port at its upper portion, and an inlet port at its lower portion, and having a channel which extends from the bottom of the primary-valve chamber to the main-valve chamber beneath the distributing-port in the latter, a main controlling-valve having play in the main-controlling-valve chamber, and provided with a valve-actuating piston having play in the piston-chamber, a primary valve having three pistons, the middle one of which has play at both sides of the distributing-port in the primary-valve chamber, and the end pistons of which are permanently to the outside of the inlet and outlet ports, and a suitable float mechanism connected to the primary valve, to actuate the latter at the extremes of the rise and fall of water within the air and water chamber, substantially as set forth.

No. 56,751. Curtain Fixture. (Attache de rideaux.)



Fred Herbert Bassett, Waterbury, Connecticut, U.S.A., 22nd July, 1897; 6 years. (Filed 11th June, 1897.)

Claim.—1st. In a curtain fixture, a pawless spring curtain-roller, side guide rods, curtain-roller supporting brackets adjustably mounted on said guide rods, clutches connected with the curtain slat at the lower part of the curtain to engage with the side guide rods. 2nd. In a curtain fixture, a pawless spring curtain-roller and side guide rods, guide sleeves carrying curtain-roller supporting brackets adjustably mounted on said rods, means for elevating said curtain-roller, clutches connected with the lower part of the curtain or slat to engage with said guide rods. 3rd. In a curtain fixture, in combination with a pawless spring roller and side guide rods, of roller supporting brackets made of sheet metal, one portion adapted to loosely embrace the guide rods, while the other portion for supporting the curtain-roller is made of double thickness, so as to afford a wider bearing surface for the ends of said rods. 4th. In a curtain fixture, a pawless spring roller, side guide rods, curtain-roller supporting brackets adjustably mounted on said guide rods, clutches connected with the lower end of the curtain and adapted to engage with the said guide rods, trips adapted to engage with said clutches to release their grip on said guide rods, so that the curtain-roller spring will wind up the curtain, and when said clutches are released from the influence of said trips the clutches will re-engage with such guide rods. 5th. The combination, in a certain fixture, of a pawless spring curtain-roller and side guide rods, curtain-roller brackets adjustably mounted on said guide rods, clutches connected to the lower curtain slat and adapted to engage with said guide rods, said clutches pivotally supported and adapted to have a longitudinal movement so as to operate in window casings of different widths, and a tilting movement so as to engage with the guide rods or be disengaged therefrom, trips and means whereby they are brought into engagement with said clutches, a stop to limit the upward movement of said clutches. 6th. The combination, in a curtain fixture, of a pawless spring roller and side guide rods, clutches on the lower curtain slat adapted to engage said guide rods, in the manner substantially as shown, base pieces on which said clutches are pivotally supported and on which base pieces said clutches are adapted to have both a horizontal and a tilting movement, trips for said clutches and means for operating said trips, said trips mounted upon the pivotal support of said clutches, stops on said base pieces for limiting the upward movement of said clutches. 7th. The combination, in a curtain fixture, having a pawless spring roller and side guide rods, curtain-roller brackets adjustably mounted on said guide rods, clutches on the lower curtain slat to engage with said guide rods, trips to engage with said clutches, an operating cord connected with said trips, said cord

brought to the central portion of the curtain slat and depending therefrom. 8th. In a curtain-roller, having end supports and a winding spring of a winding arm projecting laterally from one of such end supports and rigidly secured thereto, whereby said spring may be wound by rotating said support, and means whereby such support is connected with said spring. 9th. In a curtain fixture of the character described and in combination with a pawless spring curtain-roller, of side guide rods and clutches to engage therewith, a portion of said guide rods being of a round or rod-like appearance, with which a circular opening in said clutches are adapted to engage, a neck portion which is embraced by an opening leading from such circular opening, and a supporting foot for said guide rods. 10th. In a curtain fixture, having a pawless spring roller and side guide rods, of clutches attached to each end of the lower curtain slat and adapted to engage with said guide rods, of a tripping device connected with said lower slat and adapted to be brought into engagement with said clutches so as to release their hold on the said guide rods and thereby bring the lower end of the curtain under the influence of the curtain-roller spring. 11th. In a curtain fixture, a tripping device connected with the lower curtain slat and adapted to engage and release a curtain grip connected with the casing. 12th. The combination, in a curtain fixture, of a pawless spring roller and side guide rods, curtain-roller bracket supports adjustably mounted on said guide rods, cords attached to said supports, cord pulleys in the corners of the window casing for supporting said cords whereby the curtain-roller is raised and lowered. 13th. The combination, in a curtain fixture, of a pawless spring roller and side guide rods, curtain-roller bracket supports adjustably mounted on said guide rods, cords and pulleys arranged as shown for operating said curtain so as to raise and lower the same, clutches connected to the lower end of the curtain, which clutches are adapted to engage with said guide rods, and trips adapted to engage with and operate said clutches. 14th. In a curtain-roller, a cup-shaped cap adapted to embrace the end thereof, a central projection provided with an inner bearing in which the end of the roller spring rod is journaled, an end wall to support the end thrust of such spring rod, a small central hole or bearing in such projection for the shank of the end support. 15th. In a curtain-roller of the character described, of a sheet metal plate mounted on one end of the curtain-roller, a round central hole in said plate to admit a spring rod of the said curtain-roller, projections on each side of said central hole for holding the ends of a curtain-roller spring, rearwardly projecting lugs formed out of the body of said plate, which lugs are adapted to enter the ends of the curtain-roller so as to prevent the rotation of said plate. 16th. The combination, in a curtain-roller of the character described, of the curtain-roller, an internal spring rod carrying a tension spring, an end plate made of a single piece of metal anchored in one end of said curtain-roller, means on said plate for securing the free ends of the curtain-roller spring, a cup-shaped cap embracing the end of said curtain-roller and said spring plate, a central bearing in said cap for the spring rod and adapted also to receive the end thrust of said rod. 17th. In a curtain fixture, of the character described, the combination with the curtain whose roll is journaled at the upper part of the casing, of an adjustable stop, a support therefor, said stop adapted to limit the upward movement of the curtain, when desired to retain it in its normal operative position, or be adjusted so as to permit a temporary removal of the same. 18th. In a curtain fixture whose roll is journaled at the upper part of the casing, and carrying a curtain whose lower free end is maintained in its vertical position by suitable side guides located along the side uprights of the casing, and adapted to sustain such curtain in any position within its vertical range, of a stop adapted to limit the upward movement of said curtain, in its normal operative position, or be adjusted so as to permit a temporary removal of such curtain. 19th. The herein described curtain fixture, comprising in combination, a curtain roll carrying a curtain, said roll journaled at the upper part of the casing, side guide rods, clutches, and trips, as shown, an adjustable stop to limit the upward movement of the curtain, or be adjusted to permit a temporary removal of the said curtain from its guide rods. 20th. The herein described curtain fixture, comprising in combination, a curtain roll journaled at the upper part of the casing, the free end of the curtain carrying trips and clutches to engage the side guide rods, said rods shortened sufficient to permit the disengagement of the clutches, temporarily, therefrom, combined with a stop adapted to limit the upward movement of the curtain, or be adjusted so as to permit the curtain to extend its upward travel sufficient to disengage the clutches from the guide rods. 21st. The combination with the curtain rod, of the finger ring constructed so that its upper part will encircle the said rod, a projecting ring handle portion, for manipulating said rod, the upper portion split through to the said ring handle, and a clamping screw intermediate therewith.

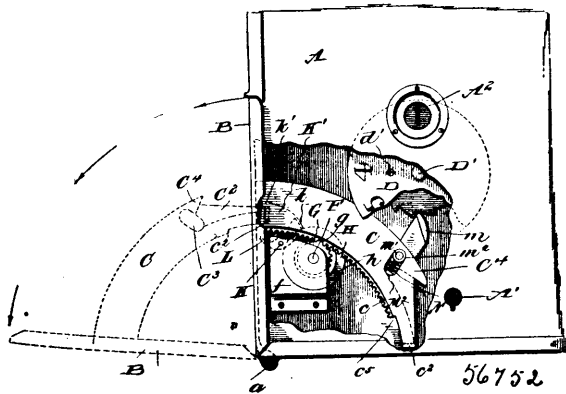
No. 56,752. Letter Box Indicator.

(Indicateur de boîtes à lettres.)

George A. Colton, Wilmette, Illinois, U.S.A., 22nd July, 1897; 6 years. (Filed 29th April, 1896.)

Claim.—1st. The combination with the clock movement, of the gear wheel, the movable door and the toothed quadrant carried thereby and adapted to engage said gear wheel, substantially as described. 2nd. The combination with the time lock and the movable door, of means carried by the door for actuating the time

movement, substantially as described. 3rd. The combination with the time movement and the indicator, of a movable door, a toothed

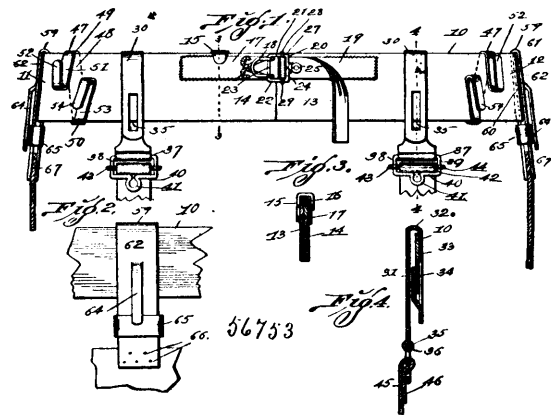


quadrant carried thereby, and mechanisms constructed and arranged to actuate the indicator as the door is opened and to start the time movement as the door is closed, substantially as described. 4th. The combination with the indicator and the time lock, of the pivoted plate having a lug, and the quadrant on the door having a projection to engage the lock on said plate, and a pawl actuated by the movement of the quadrant to actuate the indicator, substantially as described. 5th. The combination with the clock movement, of a gear on the arbor thereof, a notched disc on said arbor, a pivoted plate having a portion to engage the notch of said disc, and the movable door having a toothed quadrant adapted to engage said gear, and a portion to actuate said plate to disengage its lug from the notch, substantially as described. 6th. The combination with the clock movement, of a gear on the arbor thereof, a notched disc on said arbor, a pivoted plate having a portion to engage the notch of said disc, and the movable door having a toothed quadrant adapted to engage said gear, a portion to actuate said plate to disengage its lug from the notch, and a double rocking pawl arranged in the path traversed by said quadrant, substantially as described. 7th. The combination with the box, the indicator and the movable door, of a time lock and a quadrant carried by the door and constructed to control the movements of the indicator and the time lock, substantially as described. 8th. The combination with the letter-box, its movable door and the time lock, of a toothed quadrant carried by the door, a pivoted plate having a finger, and a lateral projection, a double rocking pawl, and a spring acting on said plate and also on said pawl, substantially as described. 9th. The combination with the letter box and its door, of a time lock arranged within the box and constructed to be controlled in its movements by positive engagement with means carried on the door, substantially as described. 10th. The combination with the letter-box and its door, of a time lock arranged within the box and constructed to be controlled in its movements by positive engagement with means carried on the door, and an interposed double rocking pawl mounted in position to control the movements of the door, substantially as described. 11th. The combination with the time lock and the movable door with its toothed quadrant, of the indicator, its ratchet and the pawl for engaging said ratchet, having a portion working in a slot in said quadrant, substantially as described. 12th. The combination with the time-lock and the movable door with its toothed quadrant, of the indicator, its ratchet and the pawl for engaging said ratchet, having a portion working in a slot in said quadrant, and spring acting to normally force said pawl outward, substantially as described. 13th. The combination with the indicator and its ratchet, and the pawl engaging said ratchet, of the time lock, and a projection carried by said pawl adapted to engage the pendulum of the escapement of said time lock, substantially as described. 14th. The combination with the indicator and its ratchet, and the pawl engaging said ratchet, of the time lock, and a projection carried by said pawl adapted to engage the pendulum of the escapement of said time lock, said pawl being mounted in a slot in the toothed quadrant carried by the door, substantially as described. 15th. The combination with the indicator and its ratchet, of the movable door, the toothed quadrant carried thereby and having a transverse slot, and the pivoted pawl having a portion working in said slot and mounted for movement lengthwise thereof, substantially as described. 16th. The combination with the indicator and its ratchet, of the movable door, the toothed quadrant carried thereby and having a transverse slot, the pivoted pawl having a portion working in said slot and mounted for movement lengthwise thereof and a spring acting on said pawl to normally force it outward, substantially as described. 17th. The combination with the time lock and the clock movement and its pendulum escapement, of the pawl for engaging the ratchet of the indicator mechanism, a lateral projection on said pawl adapted to engage said pendulum, and means carried by the movable door to control the time lock and to actuate said pawl, substantially as described. 18th. The combination with the time lock, and the clock movement and its pendulum escapement, of the pawl for en-

gaging the ratchet of the indicator mechanism, and a lateral projection on said pawl adapted to engage said pendulum, substantially as described. 19th. The combination with the clock movement and the gear wheel on the arbor thereof, having a projection, of the movable door, and the quadrant carried thereby, having a racked under portion, and a shoulder to engage the projection of the gear, substantially as described. 20th. The combination with the clock movement and the gear wheel on the arbor thereof, having a projection, of the movable door, the quadrant carried thereby and having a racked under portion, a shoulder to engage the projection on the gear, and a double rocking pawl mounted in the path of said quadrant to be engaged by the teeth thereof, substantially as described. 21st. The combination with the clock movement, of the gear wheel, the movable door, and means connecting said door and gear wheel, substantially as described.

No. 56,753. Garment Supporting Belt.

(Ceinture pour vêtements.)

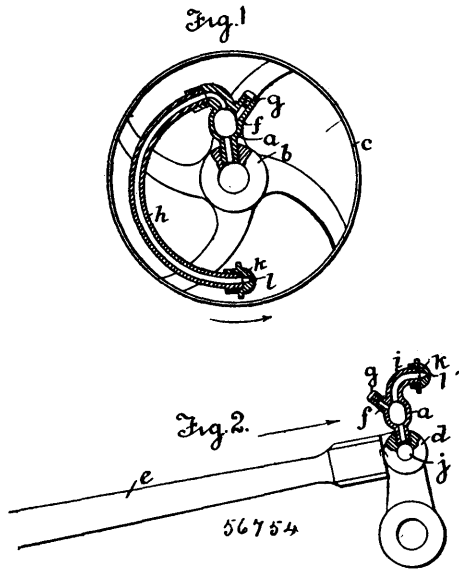


Isaac David Wright, Sedalia, Missouri, and Albert E. McClure, Pittsburg, Pennsylvania, both in the U.S.A., 22nd July, 1897; 6 years. (Filed 21st June, 1897.)

Claim.—1st. In a belt, the combination with a suitable web of the hose supporting clips 30 slidably mounted upon the web and buckles attached to the lower ends of said clips, substantially as specified. 2nd. In a belt, the buckle 37 consisting of the back bar 36, the side bars 38 and 39 and the gripping bar 40 formed integral of a single piece of wire, and said gripping bar 40 being extended forwardly, thus forming the lift 41, and the sliding bar 42 having its ends bent around the side bars 38 and 39, thus forming the bearings 33 and 34, which bearings slide upon said side bars, substantially as specified. 3rd. In a belt, the combination with a suitable web of the hooks 15 attached to the upper edge of one end of the web and engaging the upper edge of the opposite end of the web, hose supporting clips 30 slidably mounted upon the web, buckles attached to the lower ends of said clips 30, hooks 47 slidably mounted upon the web, the clips 59 slidably mounted upon the web and a buckle adjustably connecting the ends of the web, substantially as specified. 4th. In a belt, the combination with a suitable web, of a buckle consisting of parallel side bars, the parallel gripping bars connecting corresponding ends of the parallel side bars, the lifts projecting from the centres of said gripping bars, two sliding bars mounted upon said side bars and operating in opposite directions towards said gripping bars, substantially as specified. 5th. In a device of the class described, the buckle 20 consisting of the side bars 21 and 22, the back bar 23 and the gripping bar 24 connecting said side bars formed of a single piece of wire, the meeting ends of said wire being bent forwardly from the centre of the gripping bar 24 and forming the lift 25, the wire ring formed of another piece of wire encircling the connection between the back bar 23 and the lift 25 and holding the ends forming the lift rigidly together, and the sliding bar 27 formed of another piece of wire and having its ends bent around the side bars 21 and 22, thus forming the bearings 28 and 29, which bearings hold said sliding bar in position and slide upon the side bars 21 and 22, substantially as specified. 6th. In a device of the class described, the hose supporting clip 30 constructed of sheet metal and consisting of the portion 31, the portion 32 bent forwardly from the upper end of the portion 31, the portion 33 bent downwardly from the front end of the portion 32, the tongue 34 cut from the portion 33 and bent inwardly, the free end of said tongue projecting in the opposite direction from the free end of the portion 33, the transversely extending bearing 35a formed by rolling the lower end of the portion 31, and the buckle 37 having its back bar mounted in said bearing 35a, substantially as specified. 7th. In a device of the class described, the hook 47 formed of a strip of sheet metal consisting of the central portion 48, the portion 49 bent outwardly from the upper end of the portion 48, the portion 50 bent outwardly from the lower end of the portion 48, the portion 51 extending downwardly from the forward

end of the portion 49, the portion 52 extending outwardly and upwardly from the lower end of the portion 51, the portion 53 extending upwardly from the forward end of the portion 50 and the portion 54 extending forwardly and downwardly from the upper end of the portion 53, substantially as specified. 8th. In a device of the class described, the sliding clip 59 formed of sheet metal and consisting of the portion 61, the portion 61 extending forwardly from the upper end of the portion 60, the portion 62 extending downwardly from the forward end of the portion 61, the tongue 64 cut from the portion 62 and bent outwardly and downwardly and the loop 65 encircling the portions 60 and 62 and slidingly mounted upon said portions and held in position by frictional contact with the tongue 64, substantially as specified.

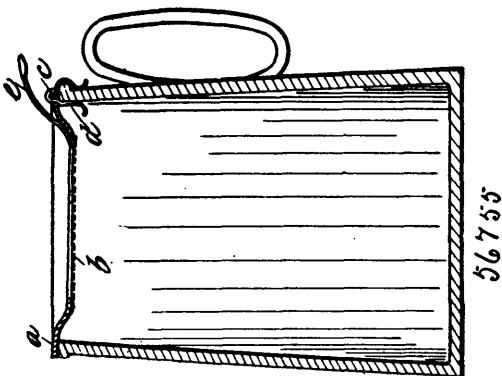
No. 56,754. Loose Pulley and Crank Pin Lubricator.
(*Graisseur pour poulies folles et boutons de manivelles.*)



Leonard W. Parker, New York, State of New York, U.S.A., 22nd July, 1897; 6 years. (Filed 23rd June, 1897.)

Claim.—In a lubricator for a moving device, as a loose pulley, or a crank pin, the combination with an oil cup attached directly to the part to be lubricated, and provided with means for filling it with the lubricant, of an air pipe attached at its inner end to the outer end of the cup, and extended forward relatively to the direction of rotation, and also outward relatively to the axis of rotation, whereby the outer end which is open to the atmosphere has a larger range of movement through space than the range of the outer end of the cup, and competent to cause pressure of air on the oil in the cup to overbalance the effect of centrifugal action on the oil, and force it into the bearing, substantially as described.

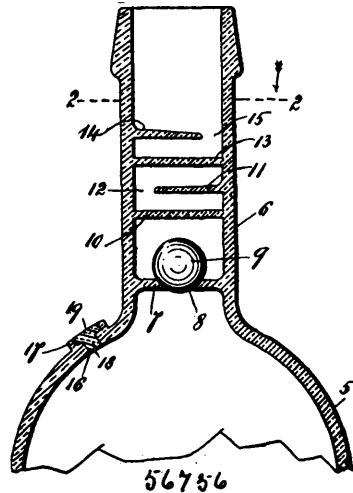
No. 56,755. Adjustable Cover for Receptacles.
(*Couvercle pour receptacles.*)



Walter Caster Gee and George Frederic Gee, both of 17 Cathedral Square, Canterbury, New Zealand, 22nd July, 1897; 6 years. (Filed 24th June, 1897.)

Claim.—1st. The combination with a cover for a receptacle of a hinge provided with a spring clip, substantially as and for the purposes specified. 2nd. In combination, the cover a, strainer b, hinge c, and spring clip d, as specified.

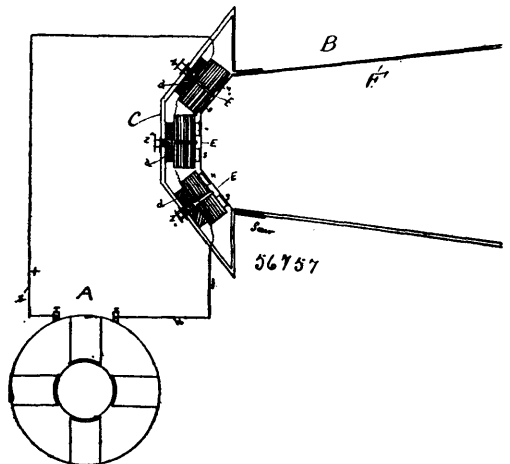
No. 56,756. Non-refillable Bottle.
(*Appareil pour empêcher le remplissage des bouteilles.*)



Eugene Fichter, Paterson, New Jersey, U.S.A., 23rd July, 1897; 6 years. (Filed 28th June, 1897.)

Claim.—1st. A bottle or other vessel provided with a neck in the bottom of which is formed a partition or diaphragm which is provided centrally with a port or passage, a valve mounted over said plate or diaphragm and adapted to close said port or passage, and a plurality of transverse partition plates which are secured or formed in said neck above said valve, and through which are formed openings which are arranged alternately on the opposite sides of the neck, said bottle being also provided in the upper part thereof with an opening through which it may be refilled, and which is adapted to be closed by a non-removable plug, substantially as shown and described. 2nd. A bottle or other vessel provided with a neck in the bottom of which is a partition or diaphragm which is provided with a central port or passage, a ball valve mounted over said plate or diaphragm and adapted to close said port or passage, a plurality of partition plates formed in or secured within said neck above said valve, and provided with side openings which are arranged alternately on opposite sides of the neck, said bottle being also provided in one side of the top thereof, with an opening through which it may be filled, and a non-removable plug for closing said opening substantially as shown and described.

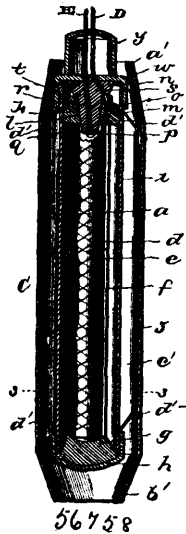
No. 56,757. Whistle. (Siflet.)



Joseph A. G. Trudeau, Ottawa, Ontario, Canada, 23rd July, 1897; 6 years. (Filed 15th January, 1897.)

Claim.—1st. In a fog horn or whistle, the combination of two or more electro-magnets acting in unison, each on a separate vibrator and provided with regulating screws, substantially as and for the purpose hereinafter set forth. 2nd. In a fog horn or whistle, the combination of a double ender electro-magnet, each end provided with a vibrator and regulating appliances, the whole actuated by an electro-magnet, substantially as and for the purpose hereinafter set forth.

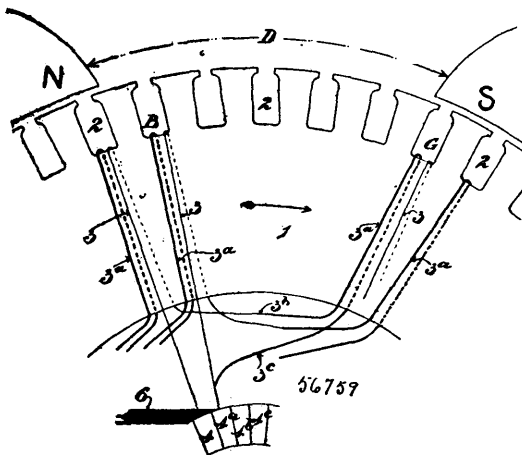
No. 56,758. Means for Removing Paraffine from Oil Wells. (*Moyen d'enlever la paraffine des puits d'huile.*)



Francis Asbury Flanegin, Washington, Columbia, U.S.A., 23rd July, 1897; 6 years. (Filed 12th December, 1897.)

Claim.—1st. The method of removing paraffine from oil wells, which consists in heating a paraffine solvent, heating and maintaining the heat of and circulating the solvent in the well and its crevices, thereby dissolving the paraffine by contact with the hot solvent and removing the solvent and contained paraffine from the well. 2nd. The method of removing paraffine from oil wells, which consists in heating a paraffine solvent to the boiling point, circulating the solvent in the well and its crevices, augmenting the heat and maintaining the circulation of the solvent, thereby dissolving the paraffine by contact with the solvent and removing the solvent and contained paraffine from the well. 3rd. A device for removing paraffine from oil wells, consisting of a heater provided with a surrounding casing, a contracted upper end, and forming a chamber between the heater and the casing.

No. 56,759. Dynamo Electric Machine. (*Machine dynamo électrique.*)

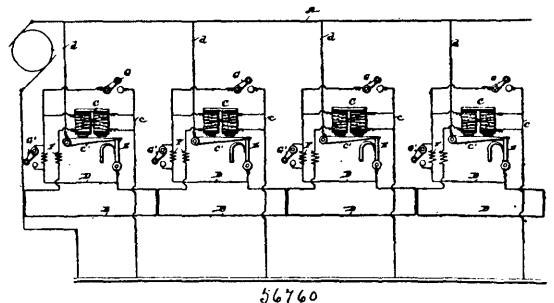


William Morris Mordey, Loughborough, Leicester, England, 23rd July, 1897; 6 years. (Filed 17th March, 1897.)

Claim.—1st. In a dynamo electric machine, an armature having each element of its winding arranged as a pair of coils so disposed

and connected that during the greater part of the revolution the electro-motive forces in the two coils are additive, while at the time of commutation they are in opposition. 2nd. In a dynamo electric machine, a Gramme armature having twice as many coils as there are segments of the commutator, the said coils being joined two in series so as to form pairs of coils each of which pairs constitutes one element of the winding, the angular breadth or spacing between the two coils constituting each element being equal or approximately equal to the angular breadth or spacing between the edges of two adjacent poles of the field magnet so that whilst one coil is under the tip or end of one pole piece the other part is under the tip or end of the next following pole piece of opposite polarity. 3rd. In a dynamo electric machine the combination of a field magnet having auxiliary poles, and a Gramme armature having twice as many coils as there are segments of the commutator, said coils being joined two in series so as to form pairs of coils each of which pairs constitutes one element of the winding, the angular breadth or spacing between the two coils constituting each element of the armature winding being such that whilst one coil is under the tip or end of one pole piece the other part is under an auxiliary pole of opposite polarity. 4th. A Gramme armature having its coils connected up in pairs each pair being connected with a commutator strip and in series with the other pairs of coils, one coil of each pair being arranged in advance of and separated from the other by the rearward coils of other pairs of coils, substantially as described. 5th. An armature comprising an annular iron core having longitudinal slots or recesses in its periphery, a commutator, and a Gramme winding wound in said slots or recesses and composed of coils connected up in pairs forming elements each of which is connected to a segment of said commutator, and is arranged in series with the other elements, the coils of each pair being separated from each other by coils of other elements. 6th. A dynamo electric machine comprising a field magnet having poles N, S, and an armature having an annular iron core 1, formed with longitudinal slots or recesses 2 in its periphery, commutator segments, and a Gramme winding consisting of a number of pairs of coils 3, 3a, located in said slots or recesses and arranged at a distance apart such that whilst one coil is under the tip or end of one pole piece the other part is under the tip or end of the next following pole piece of opposite polarity, one end of each coil 3, being in communication with one segment of the commutator and the other end of said coil being in connection by a conductor 3b, with one end of the corresponding coil 3a, to that end of the next forward coil 3, that is communicated with the next segment of the commutator, substantially as described and shown. 7th. In a dynamo electric machine the combination of a toothed or slotted or channelled drum, with a winding so disposed that at the moment of commutation the electro-motive force that is being generated in one part of the element undergoing commutation will be such as to oppose the electro motive force then being generated in the other part of the same element thereby obviating or mitigating sparking and armature reaction. 8th. In a dynamo electric machine, the combination of a toothed or slotted or channelled drum, and a chord winding, the angle of chord of said winding being such that at the moment of commutation the forward part of the element of the winding undergoing commutation and the rearward part of said element are both under the influence of the same magnetic field, the one coming into it before the other leaves it. 9th. In a dynamo electric machine the combination of a toothed or slotted or channelled drum and a chord winding, the angle of chord of said winding being such that at the moment of commutation one portion of the element of the winding is under the influence of one pole while the other portion, or another portion, of the said element is under the influence of an auxiliary pole. 10th. In a dynamo electric machine, a series wound multipolar drum armature having a toothed, slotted or channelled core and a winding, the coils of which composing each element are so arranged as to oppose one another during the moment of commutation but to aid one another during the greater part of each revolution, substantially as described.

No. 56,760. Safety Device for Electric Circuits. (*Appareil de suréte pour circuits électriques.*)



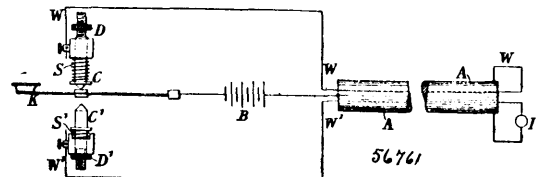
Lewis G. Rowand, Camden, New Jersey, U.S.A., 23rd July, 1897; 6 years. (Filed 26th December, 1896.)

Claim.—1st. Two circuits in multiple having a common connection with the source of current supply, and a normally closed switch

controlling said common connection, an electro-magnet having reverse windings creating a normally ineffective field, one winding being in one circuit and the other winding in the other circuit, said magnet controlling the operation of the switch, and adapted when its field becomes effective to open said switch. 2nd. Two circuits in multiple having a common connection with the source of current supply, and a normally closed switch controlling said common connection, an electro-magnet having reverse windings creating a normally ineffective field, one winding being in one circuit and the other winding in the other circuit, said magnet controlling the operation of the switch and adapted when its field becomes effective to open said switch, and a switch adapted when operated to cut off the current from one of the magnet windings. 3rd. The combination with a main electric circuit, a secondary circuit, an electro-magnet included in both circuits, said magnet having reverse windings creating a normally ineffective field, one winding being included in the main circuit and the other in the other circuit, and a normally closed switch controlling the current in the main circuit controlled by said magnet, said magnet being adapted when its field becomes effective to open said switch. 4th. Two circuits in multiple having a common connection with the source of current supply, and a switch controlling said connection, an electro-magnet having reverse windings, creating a normally ineffective field, one winding being in one circuit, and the other winding in the other circuit, said magnet controlling the operation of the switch and adapted, when its field becomes effective, to open said switch, resistances in both circuits, and means when said magnet field becomes effective to shunt the current about one of said resistances. 5th. The combination with a main electric circuit, a secondary circuit, an electro-magnet included in both circuits, said magnet having reverse windings creating a normally ineffective field, one winding being included in the main circuit, and the other in the other circuit, and a switch controlling the current in the main circuit controlled by said magnet, said magnet being adapted when its field becomes effective, to open said switch, resistances in both circuits, and means, when the magnet becomes effective, to shunt the current about one of said resistances. 6th. Two circuits in multiple having a common connection with the source of current supply, and a switch controlling said common connection, an electro-magnet having reverse windings, creating a normally ineffective field, one winding being in one circuit, and the other winding in the other circuit, said magnet controlling the operation of the switch and adapted, when its field becomes effective, to open said switch, resistances in both circuits, and means independent of the magnet to shunt the current about one of said resistances. 7th. The combination with a main electric circuit, a secondary circuit, an electro-magnet included in both circuits, said magnet having reverse windings, creating a normally ineffective field, one winding being included in the main circuit and the other in the other circuit, and a switch controlling the current in the main circuit controlled by said magnet, said magnet being adapted, when its field becomes effective, to open said switch, resistances in both circuits, and means independent of the magnet to shunt the current about one of said resistances. 8th. Two circuits in multiple having a common connection with the source of current supply, and a normally closed switch controlling said common connection, an electric device having double windings, making said device normally ineffective, one winding being in one circuit, and the other winding in the other circuit, said electric device controlling the operation of the switch and adapted when rendered effective to open said switch. 9th. Two circuits in multiple having a common connection with the source of current supply, and a normally closed switch controlling said common connection, an electric device having double windings, making said device normally ineffective, one winding being in one circuit, and the other winding in the other circuit, said electric device controlling the operation of the switch, and adapted when rendered effective to open said switch and a switch adapted to cut the current from one of said windings. 10th. The combination with a main electric circuit, a secondary circuit, an electric device included in both circuits, said device having double windings making said device normally ineffective, one winding being included in the main circuit, and the other in the other circuit, and a normally closed switch controlling the current in the main circuit controlled by said electric device, said device, when rendered effective, being adapted to open said switch. 11th. Two circuits in multiple having a common connection with the source of current supply, and a switch controlling said common connection, an electric device having double windings, making said device normally ineffective, one winding being in one circuit, and the other winding in the other circuit, said electric device controlling the operation of the switch, and adapted, when rendered effective, to open said switch, resistances in both circuits, and means controlled by said electric device to shunt the current about one of said resistances. 12th. The combination with a main electric circuit, a secondary circuit, an electric device included in both circuits, said electric device having double windings, making said device normally ineffective, one winding being included in the main circuit, and the other in the other circuit, and a switch controlling the current in the main circuit, controlled by said electric device, said electric device being adapted, when rendered effective, to open said switch, resistances in both circuits, and means controlled by the electric device to shunt the current about one of said resistances. 13th. Two circuits in multiple having a common connection with the source of current supply, and a switch controlling said common

connection, an electric device having double windings, making said device normally ineffective, one winding being in one circuit, and the other winding in the other circuit, said electric device controlling the operation of the switch, and adapted when rendered effective, to open said switch, resistances in both circuits, and means independent of the electric device to shunt the current about one of said resistances. 14th. In combination with a main electric circuit, a secondary circuit, an electro-magnet included in both circuits, said magnet having reverse windings, creating a normally ineffective field, one winding being included in the main circuit, and the other in the other circuit, and a normally closed switch controlling the current in the main circuit controlled by said magnet, and adapted when its field becomes effective to open said switch, and means to open one of said circuits independent of the magnet switch. 15th. The combination with a main electric circuit, a secondary circuit, an electric device included in both circuits, said device having double windings, making said device normally ineffective, one winding being included in the main circuit, and the other in the other circuit, and a normally closed switch controlling the current in the main circuit controlled by said electric device, said device when rendered effective being adapted to open said switch, and means to open one of said circuits independent of the electric device switch. 16th. Two circuits having a common source of current supply, a switch controlling the admission of current from the source of current supply to said circuits, an electric device having double windings, making said device normally ineffective, one winding being in one circuit, the other winding in the other circuit, said electric device controlling said switch and adapted when rendered effective, to open said switch. 17th. In an electric railroad, the combination of a source of current supply, a main feeder wire, trolley section wires, each having connection with the main feeder wire, a normally closed switch controlling the admission of current from the feeder wire to each trolley section, an electric device having double windings, one winding in the trolley section wire circuit, the other in a circuit independent of the trolley section, said electric device controlling the operation of the switch, and adapted when the trolley wire breaks to operate to open said switch. 18th. In an electric railroad, the combination of a source of current supply, a main feeder wire, a trolley section wire having connection with the said main feeder wire, a normally closed switch controlling the admission of current from the feeder wire to said trolley section, an electric device having double windings, one winding in the trolley section wire circuit, the other in a circuit independent of the trolley section wire, said electric device controlling the operation of the switch and adapted when the trolley section wire breaks to open said switch. 19th. In an electric railroad, the combination of a source of current supply, a trolley section having connection with the source of current supply, a normally closed switch controlling said connection, an electric device having double windings, one winding in the circuit including the trolley section, the other in the circuit independent of the trolley section, said electric device controlling the operation of the switch and adapted when the trolley section is broken to operate to open said switch. 20th. In combination, an electric circuit, a source of current supply a normally closed switch controlling the admission of current from the source of supply to said circuit, an electric device on a circuit independent of the first mentioned circuit, adapted when its field is effective to open said switch, and an electric device on the first mentioned circuit acting against said first mentioned electric device and adapted with the normal resistance of the main circuit to neutralize the action of the first-mentioned electric device. 21st. In combination, an electric circuit, a source of current supply, a normally closed switch controlling the admission of current from the source of supply to said circuit, an electric device on a circuit independent of the first-mentioned circuit acting against said first mentioned electric device and adapted with the normal resistance of the main circuit to neutralize the action of the first mentioned electric device.

No. 56,761. Telegraph or Telephone Cable and their Connections. (*Cable, etc., de télégraphes et téléphones.*)

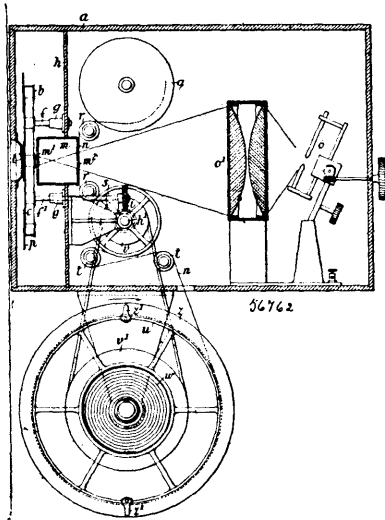


James Mark Barr and Charles Edmund Stanley Phillips, both of Castle House, Shooter's Hill, Kent, England, 23rd July, 1897; 6 years. (Filed 29th December, 1896.)

Claim.—1st. A telegraph or telephone cable, having its conducting wires or strands separated by paper or other material of comparatively low conductivity and low specific inductive capacity and the wires or strands arranged to be connected at the terminal ends of the cable in two equal groups, to the armour of the cable or equivalent.

ent return conductor, by keys so arranged that while the one group is cut out of circuit the other group is brought into the circuit with the armour or return conductor, substantially as and for the purpose set forth. 2nd. The herein described method of arranging and operating a telegraph or telephone cable by dividing its suitably insulated conducting wires or strands into two equal groups, connected to the metallic armour of the cable or equivalent return conductor by signalling keys so arranged as to cut the one group out of circuit while the other group, including suitable signalling instruments is brought into circuit, for the purposes set forth.

No. 56,762. Cinematographic Lantern or Apparatus.
(*Lanterne ou appareil cinematographique.*)

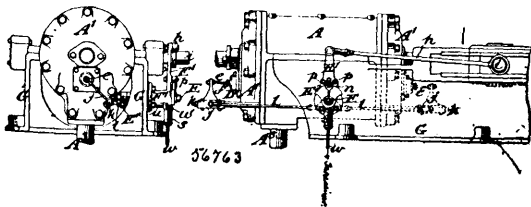


Johan Wilhelm Holst, Amsterdam, Holland, 23rd July, 1897; 6 years. (Filed 30th December, 1896.)

Claim.—1st. In a cinematographic lantern, the combination of a continuously moving picture band and a series of lenses adapted to travel in the same direction and at the same speed as the said band, substantially as and for the purpose described. 2nd. In a cinematographic lantern, the combination of a series of lenses mounted in an endless carrier and adapted to be moved successively into local position opposite an opening and of a picture band adapted to be continuously moved at the same speed as that at which lenses are caused to travel, substantially as and for the purpose described.

No. 56,763. Air Compressor.

(*Machine de compression pour l'air.*)

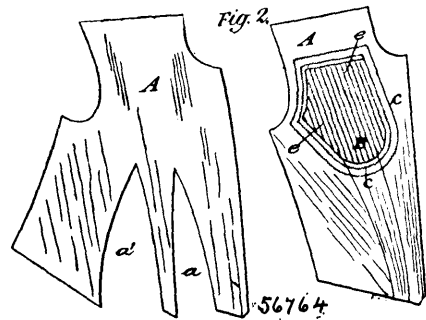


The Ingersoll-Sergeant Drill Co., New York, State of New York, assignees of Henry Clark Sergeant, Westfield, New Jersey, all in the U.S.A., 23rd July, 1897; 6 years. (Filed 3rd May, 1897.)

Claim.—1st. The combination in an air or gas compressor, of a discharge valve having a stem of smaller diameter, than its head, an annular dash pot in which the portion of the head projecting around the stem of the valve is sheathed when the valve is open, substantially as and for the purpose herein described. 2nd. The combination with an air or gas compressor cylinder, having a hollow head constituting an air discharge chest, of a dash pot within the said head opening into the said discharge chest and a discharge valve which when open has its head sheathed within said dash pot, substantially as herein described. 3rd. The combination in an air or gas compressor, of a valve box, a valve having a hollow stem, a guide in said box for said stem, a valve operating tappet enterin the said stem, and a guide for said tappet provided in the valve box and projecting

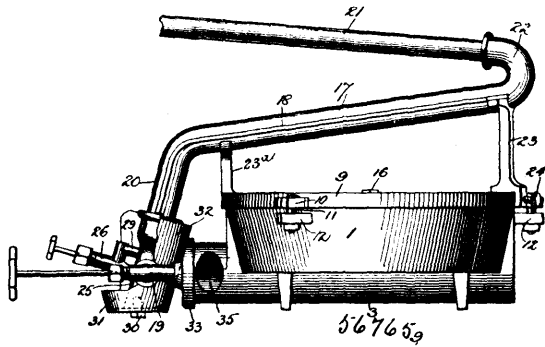
into the hollow valve stem, substantially as herein described. 4th. In an air or gas compressor, the combination with a discharge valve having a hollow stem and a head projecting around said stem, of a valve box composed in part of a cylinder and in part of a cap which is fitted to said cylinder and which contains a guide for said stem the said box and stem having formed between them an annular dash pot for the projecting head of the valve, a valve tappet entering said hollow stem, a guide for said tappet provided in said cap and projecting within said hollow stem, and a stuffing box for said tappet provided in said guide, substantially as herein described. 5th. In an air or gas compressor, the combination with a discharge valve which opens by the pressure of air or gas in the compressor cylinder and positively operating mechanism for closing said valve including a trippable engaging device, of a tripping device under the control of the air delivered by the compressor for tripping said engaging device to prevent the operation of said closing mechanism and leave the said valve open whenever the pressure of the said delivered air or gas reaches a determined maximum and so long as said pressure remains at or above said maximum, substantially as set forth. 6th. In an air or gas compressor, the combination with the discharge valves, of tappets for closing said valves, a rock shaft having arms connected with said tappets, a driving rocker arm loose around said rock shaft and connected with the compressor piston, a trippable engaging device for engaging said rocker arm with the rock shaft and a tripping device under the control of the air or gas delivered by the compressor for tripping said engaging device when the pressure of the delivered air or gas reaches a determined maximum, substantially as herein described. 7th. In a discharge valve closing mechanism for an air or gas compressor, the combination of a rock shaft having affixed thereon arms connected with the discharge valves and having also affixed thereon a plate from the edge of which projects a tooth, a rocker arm loose around said rock shaft and connected with the piston of the compressor, pawls on said rocker arm for engaging with said tooth, and a lifter under the control of the air or gas delivered by the compressor fitted to slide within said plate for disengaging said pawls from said tooth, substantially as herein described. 8th. The combination of the valve closing rock shaft E, having affixed thereon the two armed swing plate connected with the valves and the toothed sector plate E², the bearing F for said rock shaft having a journal m, on its exterior, the driving rocker arm E¹, fitted loosely to said journal and connected with the piston of the compressor, the spring actuated pawls p on said rocker arm for engaging with the said toothed sector plate, the lifter r on the said rocker arm for disengaging said pawls, the cylinder s, containing the piston t, for operating said lifter, all substantially as herein described. 9th. The combination with the valve operating rock shaft, of the toothed sector plate affixed to said shaft, the driving rocker arm loose around said rock shaft carrying pawl for engaging with said toothed plate, and the lifter on said rocker arm for disengaging said pawls from said plate, the said sector plate and rocker arm being furnished respectively with projections 8, 8*, 9, 9* for bringing the rock shaft to a central position when the said pawls are disengaged, substantially as herein described.

No. 56,764. Dress Form. (*Forme pour robes.*)



Louis Emile Hackerelle, New York, State of New York, U.S.A., 23rd July, 1897; 6 years. (Filed 3rd May, 1897.)

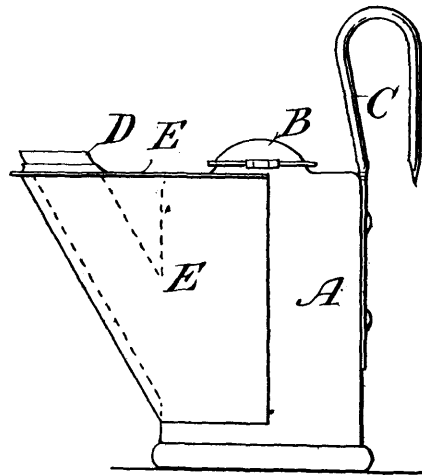
Claim.—1st. A dress form comprising a fabric adapted to the bust of the wearer and having its lower portion contracted by bringing distant portions into proximity to form an outwardly extending bulge intermediate of its upper and lower ends and a border strip secured to the fabric of the dress form around the border of the bulge portion to prevent the distortion of the bulge portion under pressure, substantially as set forth. 2nd. A dress form comprising a fabric adapted to the bust of the wearer having its lower portion gathered to form an outwardly projecting bulge intermediate of its ends, a resilient fabric fitted to said bulge portion, a border strip secured to the dress form fabric and to the edge of the resilient fabric to prevent the distortion of the bulge portion under pressure and lines of stitching connecting the two fabrics within the limits of the border strip, substantially as set forth.

No. 56,765. Oil Burner. (Brûleur d'huile.)

Herbert O. Bennett, Morgan Park, Illinois, U.S.A., 23rd July, 1897; 6 years. (Filed 5th May, 1897.)

Claim.—1st. A device for the purpose described having in combination a chamber, a foraminous diaphragm or web with which said chamber is covered, a central inlet at the bottom of said chamber, a spreader arranged below said diaphragm and over said inlet and means for supplying said inlet with combustible fluid, substantially as set forth. 2nd. A device for the purpose described having in combination a shallow chamber, a foraminous diaphragm or web with which said chamber is covered and means for admitting a combustible fluid into said chamber, substantially as set forth. 3rd. A device for the purpose described having in combination a chamber, a foraminous diaphragm or web with which said chamber is covered, means for disseminating a combustible fluid in said chamber below said diaphragm, and a retort extending across said diaphragm and communicating with said chamber and with a supply of combustible fluid, substantially as set forth. 4th. A device for the purpose described having in combination a chamber, a foraminous diaphragm or web with which said chamber is covered, a central opening in the bottom of said chamber having communication with a source of combustible fluid, a spreader located over said opening and having the standard 13 upon which said diaphragm is supported, substantially as set forth. 5th. A device for the purpose described having in combination a shallow pan-like chamber, a foraminous diaphragm with which said chamber is covered, the sub-passage 3 extending diametrically across the bottom of said chamber from side to side thereof and having a discharge opening at substantially the central portion of the bottom of said chamber, a discharge nozzle for injecting combustible vapours into said passage whereby the same will be intermixed before discharging through said central opening, and a spreader arranged in said chamber over said opening, substantially as set forth. 6th. A device for the purpose described having in combination a shallow chamber, a perforated diaphragm arranged across the top of said chamber, the ring 9 for holding the edges of said diaphragm, the sub-passage 3 extending under said chamber and having an opening located at a distance from each end thereof and communicating with said chamber, a spreader arranged over said opening and having the standard 13 supporting said diaphragm and means for admitting combustible fluid to one end of said passage, substantially as set forth. 7th. A device for the purpose described having in combination, a burner proper, having a mixing chamber, an inclined retort arranged over said burner, and a discharge nozzle communicating with the lower end of said retort and with said mixing chamber, substantially as set forth. 8th. A device for the purpose described, having in combination a burner proper and an inclined retort arranged over said burner and having the fins or flanges 18, substantially as set forth. 9th. A device for the purpose described, having in combination a burner proper, a retort arranged over said burner and having a depending branch, a spray nozzle communicating with said branch and arranged to play against the outer side thereof, and a discharge nozzle communicating with said branch and discharging into said burner proper, substantially as set forth. 10th. A device for the purpose described, having in combination a burner proper, a retort arranged over said burner and having a depending branch provided with the flanges or fins 18, a spray nozzle communicating with said branch and arranged to play against the outer side of said branch, a discharge nozzle communicating with said branch and discharging into said burner, and a cup arranged under said first nozzle and having a flange extending around said branch and up to said fins or flanges, substantially as set forth. 11th. A device for the purpose described, having in combination a burner proper, a retort arranged over said burner in an inclined direction and having connection with said source of fluid fuel and with said burner, substantially as set forth. 12th. A device for the purpose described, having in combination a burner proper, a retort arranged over said burner in an inclined position and having connection therewith at one end and a supplemental retort connected with the other end of said first retort and being also arranged in an inclined position, substantially as set forth. 13th. A device for the purpose described, having in combination a shallow pan-like chamber, a foraminous diaphragm closing the

upper side of said chamber, a sub-passage under said chamber having a neck leading upwardly thereinto, a hood arranged over and extending down below the upper end of said neck, a retort arranged over said diaphragm and an injector connected with said retort and discharging into said sub-passage, substantially as set forth. 14th. A device for the purpose described, having in combination a shallow pan-like chamber, a foraminous diaphragm arranged over the upper side of said chamber, a sub-passage below said chamber having a neck leading upwardly thereinto, a hood arranged over said neck, an internal pipe of considerably smaller diameter than said sub-passage arranged therein and extending beyond said neck, a retort arranged over said foraminous diaphragm and an injector connected with said retort and discharging into said internal pipe, substantially as set forth.

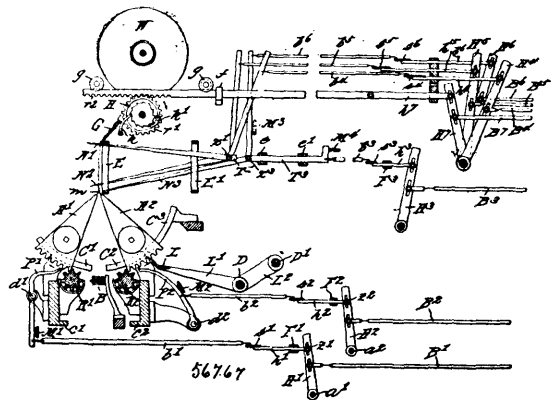
No. 56,766. Miners' Lamp. (Lampe de mineurs.)

The Davidson Manufacturing Co., Limited, Montreal, Quebec, assignee of Hugh Dixon, Ottawa, Ontario, both in Canada, 23rd July, 1897; 6 years. (Filed 7th May, 1897.)

Claim.—1st. In a lamp, the combination of a reservoir, a wick tube extending from near the bottom of said reservoir and a casing of a better heat conducting material than that of which the reservoir is made enveloping said wick tube and partly enveloping said reservoir and the space between the latter and being in contact therewith and secured thereto, substantially as set forth. 2nd. In a lamp, the combination of a reservoir, a wick tube extending obliquely from near the bottom of said reservoir, a casing enveloping said wick tube and enclosing the space between it and the reservoir and partly enveloping said reservoir and being in contact with and secured to the same and being of a better heat conducting material than that of which the reservoir is made, and a non-fluid hydrocarbon as illuminant in said reservoir, substantially as set forth. 3rd. In a lamp, the combination of the reservoir A, the wick tube D, and casing E, E', substantially as set forth.

No. 56,767. Lace Making Machine.

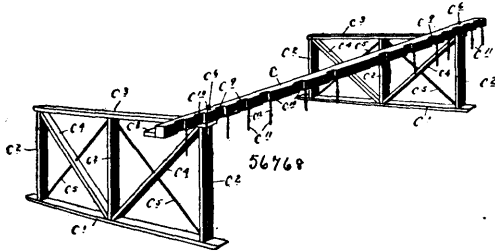
(Machine pour faire de la dentelle.)



August Matitsch, Vienna, Austria, 23rd July, 1897; 6 years. (Filed 7th May, 1897.)

Claim.—1st. A machine for making pillow-lace having three combs C¹, C², C³, which are arranged in the same circular arc, of which the middle one is capable of being shifted longitudinally, by means of cams and levers similar to those employed in the double-locker machines, in order to produce the motion of the carriages located in this comb C², to the right or to the left, which carriages are moved out of one comb into another by rollers R¹, R², are held back in the combs by pickers P¹, P², moved independently of one another by a Jacquard, and are raised entirely into the back comb by a locker L, so that the production of the twists can be effected by means of the bobbin-threads only, which are fed by the carriages, without the aid of warp or beam threads, and, in consequence of the arbitrary movement of the pickers by the Jacquard, any desired bobbin-threads can be put out of operation as long and as often as desired and crossed with one another as desired, the twists can be placed into order in any desired sequence, and each thread can be employed in the same way and gradually led from one edge of the lace to the other. 2nd. In a machine according to the preceding claim, the arrangement of needles N¹, N², N³, which are movable independently of one another and which, in consequence of their connection with the boxes of two Jacquards, (a Dropper-Jacquard and a Finebar-Jacquard) can be given an arbitrary movement and position in relation to the twists, so that the finished twists can be held fast in any desired places and as long as desired and therefore any alteration in their form and position in the pattern is prevented. 3rd. In a machine according to claim 1, a device for winding up the finished lace applied to the winding-up beam, H, comprising the ratchet-wheel r, the toothed wheel r¹ loosely mounted and freely rotating upon the beam H, and the rack r², connected with a box of a Dropper-Jacquard, said winding-up device being operated by the Jacquard that causes the up and down movement of the needles in such a manner that the winding-up beam is rotated at the desired times and as long as desired. 4th. My improved lace-making machine constructed, arranged and operating substantially as hereinbefore described with reference to and illustrated by Fig 1, of the accompanying drawings.

No. 56,768. Device for use in erecting Dock Bents, etc. (Appareil en usage dans l'erection des courbes de bassins, etc.)



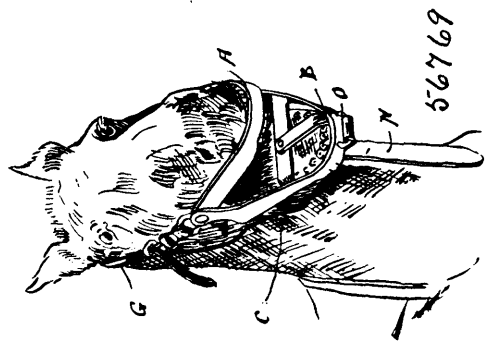
Matthew J. Peppard and Jas. F. Williamson, both of Minneapolis, Minnesota, U.S.A., 23rd July, 1897; 6 years. (Filed 10th May, 1897.)

Claim.—1st. A device for use in erecting the bents of docks or other structures, comprising the combination with one or more carriers, of an alignment-beam supported by said carrier or carriers to which the uprights may be temporarily secured until capped or tied in their erected position, and which carriers and alignment-bar are movable forward, over the dock, to serve the same function in the erection of successive bents, substantially as described. 2nd. A device for use in erecting the bents of docks or other structures, comprising two or more carriers adapted to be moved over the horizontal timbers or parts of the structure and be guided by the uprights of the same, and an alignment-beam removably secured to said carriers and provided with retaining devices for temporarily securing the uprights of the bent, being erected thereto, until capped or tied in their erected position, substantially as described. 3rd. In a device for use in erecting the bents of docks or other structures, the combination with sled-like carriers adapted to be moved over the horizontal timbers and guided by the vertical timbers, or parts of the erected structure, of an alignment beam removably secured to said sled-like carriers, and retaining devices for temporarily securing the uprights to said beam, until capped or tied together in their erected position, substantially as described. 4th. In a device for use in erecting the bents of docks or other structures, the combination with one or more carriers, of an alignment-beam supported by said carrier or carriers, to which the uprights may be temporarily secured until capped or tied in their erected position, and a foot-board also supported by said carriers directly adjacent or together with said alignment-beam, which parts are movable forward, over the dock, to serve the same function in the erection of successive bents, substantially as described.

No. 56,769. Veterinary Speculum.
(*Spéculum vétérinaire.*)

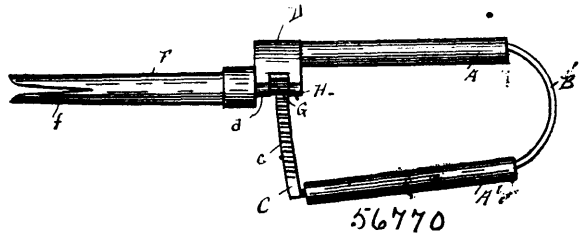
Alexander A. Walker, Casselton, North Dakota, U.S.A., 23rd July, 1897; 6 years. (Filed 17th May, 1897.)

Claim.—1st. In a veterinary speculum the upper and lower jaws pivoted together, the cross-plates attached to the said upper and



lower jaws, a lever member pivoted to the upper and lower jaws, said lever member having shoulders or offsets adapted to engage the upper jaw, the head strap connected to the lower jaw, the drawing-strap attached to the lower member and adapted to pull upon the lower jaw, substantially as and for the purpose specified. 2nd. In a veterinary speculum, the upper and the lower jaws pivoted together, the lever members pivotally attached to said upper and lower jaws, said lever member having shoulders or offsets to engage the upper jaw, the head strap connected with the lower jaw, the cross-plates and pivoted bars, the drawing-strap attached to the lever, the staple and buckle attached to the lower jaws and through which the drawing strap passes, substantially as shown and described.

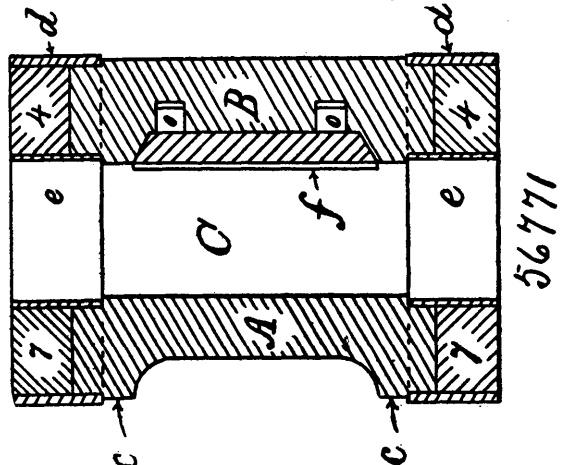
No. 56,770. Curling Iron. (Fer à frisser.)



Fred. D. Williams, Cooperstown, North Dakota, U.S.A., 23rd July, 1897; 6 years. (Filed 17th May, 1897.)

Claim.—As an improved article of manufacture a curling iron, comprising handles consisting of two like parts, a spring connecting the same at their outer ends, one of said parts carrying at its inner end a tubular bearing, a mandrel rotatably mounted therein, and a pinion carried at the inner end of said mandrel, and a rack-bar carried by the inner end of the other part, adapted to engage said pinion to rotate the mandrel.

No. 56,771. Stamp Tappet. (Came de pilon.)



Charles A. McClair, Newport, Gardner Clish, Duncan McDonald, and Silas R. Tupper, all of Truro, and John McGuire, North Brookfield, all in Nova Scotia, Canada, 23rd July, 1897; 6 years. (Filed 26th December, 1896.)

Claim.—1st. A stamp tappet having a recess formed at one end or at both ends for the reception of wood or other suitable material,

substantially as and for the purpose hereinbefore set forth. 2nd. A stamp tappet combining the metal bands *d d*, the rings *e e*, and the wood filling 1, 2, 3, 4, 5, 6, 7, 8, with the heads *e e*, the neck *A*, the key-boss *B*, the bore *C*, the gib *f*, and the key-ways *o o*, substantially as and for the purpose hereinbefore set forth. 3rd. In a stamp tappet, the combination of the bands *d d*, and the rings *e e*, with the wood filling, substantially as and for the purpose hereinbefore set forth.

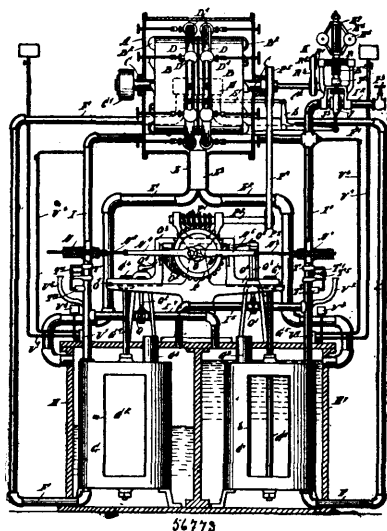
No. 56,772. Process of Separating Nickel from Copper in Ore or Matte. (*Séparateur de minerais.*)

Albert R. Ledoux, New York, State of New York, and The Oxford Copper Company, Constable Hook, New Jersey, assignee of Noak V. Hyhinette, Brooklyn, New York, all in the U.S.A., 23rd July, 1897; 6 years. (Filed 17th May, 1897.)

Claim.—1st. The process of separating copper from nickel in their sulphur compounds, consisting in fusing the mixed sulphides, treating the fused mass with sulphide of manganese and thereby effecting solution of the copper sulphide in said manganese sulphide, allowing the nickel to subside and removing the supernatant sulphides of manganese and copper. 2nd. The process of separating copper from nickel in their sulphide compounds, consisting in fusing the mixed sulphides, treating the fused mass with sulphide of manganese and an alkali sulphide and thereby effecting solution of the copper sulphide in said manganese sulphide, allowing the nickel sulphide to subside and removing the supernatant sulphide of manganese and copper. 3rd. The process of separating copper from nickel in their sulphur compounds consisting in fusing the mixed sulphides, treating the fused mass with sulphides of manganese produced by mixing the raw materials thereof with the ore or matte, and thereby effecting solution of the copper sulphide in said manganese sulphide, allowing the nickel sulphide to subside and removing the supernatant sulphide of manganese and copper. 4th. The process of separating copper from nickel in their sulphur compounds, consisting in fusing the mixed sulphides, treating the fused mass with sulphide of manganese and sulphides of an alkali produced mixing the raw materials thereof with the ore or matte and thereby effecting solution of the copper sulphide in said manganese sulphide, allowing the nickel sulphide to subside and removing the supernatant sulphide of manganese and copper.

No. 56,773. Fluid Pressure and Hydraulic Motor.

(*Pression et moteur hydraulique.*)



Semter Beauregard Battey, New York, State of New York, U.S.A., 23rd July, 1897; 6 years. (Filed May 17th, 1897.)

Claim.—1st. A fluid pressure and hydraulic motor provided with a closed tank, connections therefrom to the motor casing for return of the water to the tank, a vessel within the said tank, a supply or pressure pipe connecting said vessel and the motor, a valved connection between the tank and vessel, and a pressure pipe opening into the said tank to force the water therein quickly into the said vessel, substantially as described. 2nd. A fluid pressure and hydraulic motor provided with a closed tank, connections therefrom to the motor casing for the return of the water to the tank, a vessel within the said tank, a supply or pressure pipe connecting

said vessel and the motor and valve connections between the tank and vessel, a pressure pipe opening into the said tank to force the water therein quickly into said vessel, and an escape valve in the top of said vessel and controlled from the said valved connections, substantially as described. 3rd. A fluid pressure and hydraulic motor comprising a casing, a wheel mounted to rotate in said casing and formed in its periphery with conduits, a pipe surrounding the wheel and formed with nozzles for discharging the water under pressure into the said conduits, two vessels adapted to contain water and alternately connect with the said pipe, pressure pipes for the said vessels to alternately force the water out of the vessels into the said nozzle pipe, and through the nozzles thereof into the conduits to rotate the wheel, tanks containing the said vessels and having valved connections therewith, return pipes leading from the said casing to the said tanks to fill the latter with the water discharged from the wheel, valves in the said pressure pipes and return pipes, and a shifting mechanism controlled by the said wheel and connected with the said valves to open and close the same, substantially as shown and described. 4th. A wheel for hydraulic or fluid pressure motor having conduits passing through the rim thereof from side to side, said conduits being curved from their inlets forward in the direction of motion and then rearward to their outlets, the outer or forward surface of these conduits being as a series of stepped cylindrical surfaces having the steps facing the outlets, substantially as described. 5th. A wheel for hydraulic or fluid pressure motor having conduits passing through the rim thereof from side to side, said conduits being curved from their inlets forward in the directions of motion and then rearward to their outlets, the outer or forward surface of these conduits being shaped as a series of stepped cylindrical surfaces, having the steps facing the outlets, a pipe surrounding the wheel and connected to the water supply, and a series of nozzles attached to the said pipe and discharging upon said conduits, substantially as described. 6th. A fluid pressure and hydraulic motor, provided with a wheel formed in its periphery with conduits having side outlets, each conduit having an entrance in the form of a groove, and a pipe surrounding said wheel and formed with nozzles adapted to discharge at one side into the said entrances of the conduits, the said pipe being hung on trunnions, and adapted to swing to move the nozzles into or out of alignment with the entrances, as set forth. 7th. A fluid pressure and hydraulic motor, provided with a wheel formed in its periphery with conduits having side outlets, each conduit having an entrance in the form of a groove, a pipe surrounding said wheel and formed with nozzles adapted to discharge into the said entrances of the conduits at one side, the said pipe being hung on trunnions and adapted to swing to move the nozzles into or out of alignment with the entrances, and a governor driven from the said wheel and controlling the swinging motion of the said pipe, as set forth. 8th. A fluid pressure and hydraulic motor, provided with a governor for controlling the inlet valve, said governor comprising a governor stem, a pinion mounted to turn and fitted to slide on said stem, and carrying the valve weights, connected by links with the said pinion and by links with a collar supported on the stem, a worm in mesh with the said pinion, and means for rotating the said worm, substantially as shown and described. 9th. A fluid pressure and hydraulic motor, comprising a casing, a wheel mounted to rotate in said casing and formed in its periphery with conduits, a pipe surrounding the wheel and formed with nozzles for discharging the water under pressure into the said conduits, two vessels adapted to contain water and alternately connect with the said pipe, pressure pipes for the said vessels to alternately force the water out of the vessels into the said nozzle pipe and through the nozzles thereof into the conduits to rotate the wheel, valves held in said pressure pipes, and a shifting mechanism controlled from the said wheel for opening and closing said valves, as set forth. 10th. A fluid pressure and hydraulic motor, comprising a casing, a wheel mounted to rotate in said casing and formed in its periphery with conduits, a pipe surrounding the wheel and formed with nozzles for discharging the water under pressure into the said conduits, two vessels adapted to contain water and alternately connect with the said pipe, pressure pipes for the said vessels to alternately force the water out of the vessels into the said nozzle pipe and through the nozzles thereof into the conduit to rotate the wheel, tanks containing the said vessels and having valved connections therewith, return pipes leading from the said casing to the said tanks to fill the latter with the water discharged from the wheel, valves in the said pressure pipes and return pipes, and a shifting mechanism controlled by the said wheel and connected with the said valves to open and close the same, substantially as shown and described. 11th. A fluid pressure and hydraulic motor, comprising a casing, a wheel mounted to rotate in said casing and formed in its periphery with conduits, a pipe surrounding the wheel and formed with nozzles for discharging the water under pressure into the said conduits, two vessels adapted to contain water and alternately connect with the said pipe, pressure pipes for the said vessels to alternately force the water out of the vessels into the said nozzle pipe and through the nozzles thereof into the conduit to rotate the wheel, tanks containing the said vessels and having valved connections therewith, return pipes leading from the said casing to the said tanks to fill the latter with the water discharged from the wheel, branch pipes leading from the said pressure pipes to the said tanks, valves in the said pressure pipes, outlet pipes and branch pipes, and a shifting mechanism controlled from the said wheel and operating the said valves, substantially as shown and described. 12th. A

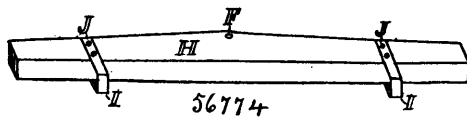
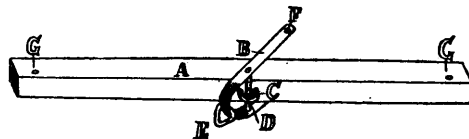
fluid pressure and hydraulic motor, comprising a closed tank, connections therefrom to the motor casing for the return of the water to the tank, a vessel within the said tank and formed in its side with a port adapted to be opened and closed by a gate valve, a supply or air pressure pipe connecting the said vessel and the motor, and a pressure pipe opening into the said tank to force the water therein quickly into the said vessel, substantially as shown and described. 13th. A fluid pressure and hydraulic motor, comprising a closed tank, connections therefrom to the motor casing for the return of the water to the tank, a vessel within the said tank and formed in its side with a port adapted to be opened and closed by a gate valve, a supply or air pressure pipe connecting the said vessel and the motor, a pressure pipe opening into the said tank to force the water therein quickly into the said vessel, and a pipe leading from the said vessel to the atmosphere, the opening to the pipe being controlled by the said gate valve, substantially as shown and described. 14th. A fluid pressure and hydraulic motor comprising a casing, wheels mounted to rotate in the said casing and in opposite directions, a pipe surrounding each wheel and discharging water under pressure into the buckets of the wheel, two vessels adapted to contain water and alternately connected with either of the said pipes, a reversing valve between the said wheel pipes and the said vessels, pressure pipes for the said vessels to alternately force the water out of the vessels into the said wheel pipes, tanks containing the said vessels, and gate valves for opening and closing ports in the sides of the said vessels, substantially as shown and described. 15th. A fluid pressure and hydraulic motor comprising a casing, wheels mounted to rotate in the said casing and in opposite directions, a pipe surrounding each wheel and discharging water under pressure into the buckets of the wheel, two vessels adapted to contain water and alternately connected with either of the said pipes, a reversing valve between the said wheel pipes and the said vessels, pressure pipes for the said vessels to alternately force the water out of the vessels into the said wheel pipes, tanks containing the said vessels, gate valves for opening and closing ports in the sides of the vessels, return pipes leading from the said casing to the said tanks to fill the latter with the water discharged from the wheel, and branch pipes leading from the said pressure pipes to the said tanks, substantially as shown and described. 16th. A motor provided with an air supply pipe and a heating pipe extending into and along said pipe, to then pass into and out of the same, and a burner in the entrance end of said pipe to heat the same, substantially as shown and described. 17th. A motor provided with an air supply pipe and a heating pipe, extending into and along the said pipe, to then pass out of the same, a burner in the entrance end of the said pipe to heat the same, and an air pipe connecting the said air supply pipe with the said burner, substantially as shown and described. 18th. A motor provided with an air supply pipe and a heating pipe, extending into and along said pipe, to then pass out of the same, a burner in the entrance end of the said pipe to heat the same, and a heater for the said burner, substantially as shown and described. 19th. A fluid pressure and hydraulic motor provided with a shifting device comprising two valves in the water supply pipes, a lever connected with the said valves, a link pivotally connected with the said lever, slides connected with each other by the said link and mounted in suitable bearings, and a cam wheel under the control of the operator and engaging the outer curved edges of the said slides to shift the same laterally, so as to impart a swinging motion to the lever to control the said valves, substantially as shown and described. 20th. A fluid pressure and hydraulic motor provided with a regulating device for the fluid pressure pipe, the said regulating device comprising a valve for controlling the fluid passing through the said pipe, a lever connected at one end with the said valve, a piston connected with the other end of the said lever, a cylinder containing the said piston and having its outer end closed and its inner open end leading to said fluid pressure pipe, and a spring connected with the said lever, substantially as shown and described. 21st. A fluid pressure and hydraulic motor provided with a regulating device for the fluid pressure pipe, the said regulating device comprising a valve for controlling the fluid passing through said pipe, a lever connected at one end with the said valve, a piston connected with the other end of the said lever, a cylinder containing the said piston and having its outer end closed and its inner open end leading to said fluid pressure pipe, a spring connected with the said lever, and means substantially as described for shifting the said spring on one end of the said lever, substantially as described. 22nd. A fluid pressure and hydraulic motor provided with a vessel having a gate valve adapted to open and close a port in the side of the said vessel, a tank closing the said vessel, a gear wheel on the outer end of the stem of the said vessel, a gear wheel on the outer end of the stem of the said valve, and a yoke having a sliding motion and provided with a rack engaging the gear wheel on the said stem to turn the gate valve so as to open and close the port in the side of the said vessel, substantially as shown and described.

No. 56,774. Doubletree. (Palonnier.)

Lee Clements, Franklin, Manitoba, Canada, 24th July, 1897; 6 years. (Filed 25th May, 1897.)

Claim.—A doubletree, comprising the front part H, having a clevis pin hole F, and bands I, with screw nail holes J, a rear or hind part A inside of bands I, having at each end a hole for a single-

tree clevis pin, and at the rear centre a staple C, and clevis rivet or pin D, and clevis B, and ring E fastened on back part of clevis B,



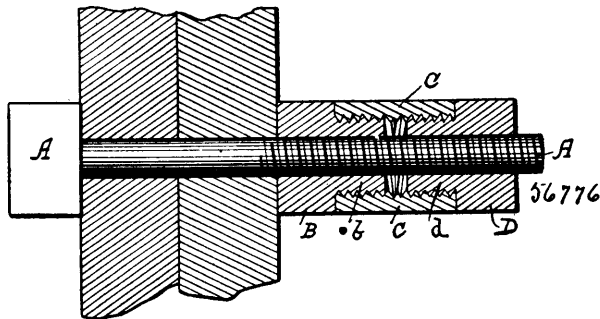
all formed, arranged and combined, as and for the purpose hereinbefore set forth.

No. 56,775. Flooring Material. (Matériel pour planchers.)

Hugo Karle, Seckenheim, Grand Duchy of Baden, Germany, 24th July, 1897; 6 years. (Filed 3rd June, 1897.)

Claim.—1st. The process for the production of a material suitable for floor coverings and other industrial purposes, in which a partially felted fleece of cotton, jute or the like is felted with a pulp of fibrous material such as cellulose, linen, cotton or the like poured both over and underneath the same, substantially as described. 2nd. The process for the production of a material suitable for floor coverings and other industrial purposes, in which the material produced is impregnated with a binding medium (such as a jelly made of hair and calcium sulpho-hydrate) dried and filled with soap powder, treated with alkaline lye and with a bath of casein and borax or of glycerine and oxide of lead, and finally passed between calendaring rollers, substantially as described.

No. 56,776. Nut Lock. (Arrête-écrou.)



Walter Jobson, Liverpool, Pennsylvania, U.S.A., 24th July, 1897; 6 years. (Filed 30th June, 1897.)

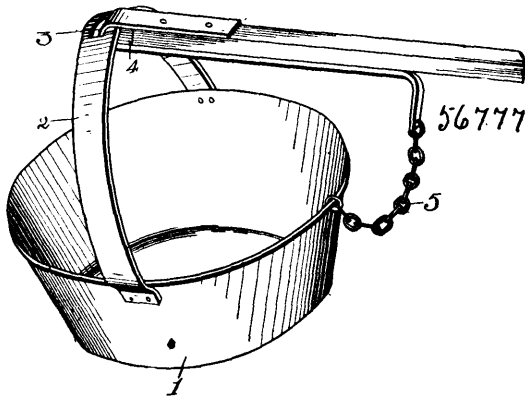
Claim.—A nut lock formed of two end sections B, D, having interior threads in the same direction, to work on a screw-bolt, and the end projections b, d, with right and left threads to work in corresponding threads of an intermediate sleeve C, as shown and described.

No. 56,777. Fruit Gatherer. (Receptacle à fruits.)

Mary Lou Cole, Cotton Valley, Louisiana, U.S.A., 24th July, 1897; 6 years. (Filed 2nd July, 1897.)

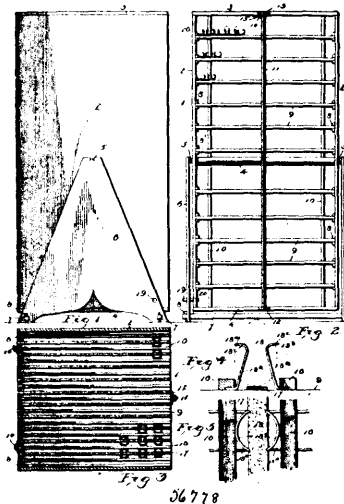
Claim.—1st. In a device for gathering fruit, comprising a bucket or receptacle having a handle or bail with sharpened edges, and a pole or rod attached to the bucket by which it is manipulated, substantially as shown and for the purposes set forth. 2nd. In a device for gathering fruit, the combination with a bucket or receptacle having a bail or handle with a sharpened side edge and a slot therein, of a supporting pole or rod having a metal shank attached to the upper end thereof, the projecting end of the shank being curved, substantially as shown and for the purposes set forth. 3rd. In a device for gathering fruit, the combination with a bucket or receptacle, of a bail or handle secured thereto and having a sharpened edge, said bail or handle being also provided with a slot in the upper por-

tion thereof, a supporting pole having a metal shank at its upper end which is curved to engage the slot in the handle of the recep-



tacle the inner end of the shank being turned outward and connected to the body of the bucket or receptacle by a chain, substantially as shown and for the purposes set forth.

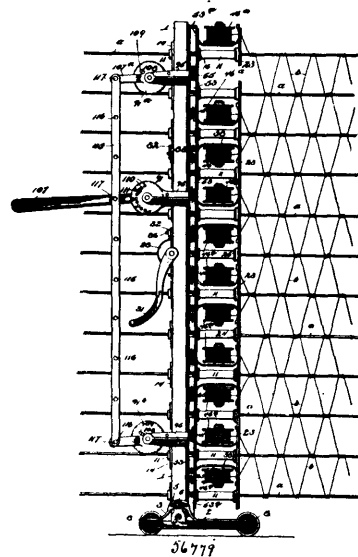
No. 56,778. Egg Turner. (*Ustensile à tourner les œufs.*)



Leonard W. Woods, Desota, Missouri, U.S.A., 24th July, 1897; 6 years. (Filed 2nd July, 1897.)

Claim.—1st. In an egg turner, the combination with suitable supporting means, of an egg turner frame mounted on a shaft pivoted to said supporting means, and provided with a series of removable shelves each carrying egg holders, substantially as described. 2nd. In an egg turner, the combination of a supporting frame, an egg holding frame mounted on a shaft journaled in said supporting frame, and provided with a series of removable shelves each carrying holders to receive and support the eggs, fixed bars at one side of the said egg frame to limit the movement of the shelves in that direction, and a removable bar at the other side thereof, adapted to be detached from the frame, substantially as described. 3rd. In an egg turner, the combination of a knockdown or foldable supporting frame, and egg turner frame mounted on a shaft journaled in said supporting frame and provided with removable shelves each having a series of longitudinal extending cleats, and a strip or layer of cushioning material between the same, a number of wire egg clips between said cleats and adapted to hold the egg in position to rest upon the said cushioning material a fixed stop bar, at one side of the egg frame to limit the movement of the shelves in that direction, a removable bar at the other side adapted to be detached to allow the shelves to be removed, and a stay pin or bolt engaging one of the said standards of the supporting frame and the egg frame to hold the latter in fixed position, substantially as described. 4th. In egg holders, the combination of a case or frame, removable shelves fitted in said case or frame and each provided with egg rows formed by a series of longitudinal extending cleats, a strip or layer of cushioning material between said cleats, and egg clips in said rows each comprising two pieces of spring wire bent to form semi-circular, oppositely projecting portions, and downward and lateral terminal extensions projecting under and clamped by the said cleats, substantially as described.

No. 56,779. Wire Fabric Machine.
(*Machine à tissus métalliques.*)



Alva La Salle Kitselman, Ridgeville, Indiana, U.S.A., 24th July, 1897; 6 years. (Filed 2nd July, 1897.)

Claim.—1st. In a wire fabric machine, a series of intermeshing cogged twister wheels, provided at diametrically opposite points with peripheral notches, each notch being formed by the space between a pair of cogs, spool carriers engaging with the notches of said wheels, stationary circular guides arranged concentric with and adjacent to the peripheries of the wheels in the vertical plane thereof to hold the spool carriers in engagement therewith, and automatically operating switches for transferring the spool carriers from the twister wheel to the adjacent wheels, substantially as set forth. 2nd. In a wire fabric machine, an aligned series of cogged twister wheels, provided at diametrically opposite points with peripheral notches, each notch being formed by the space between a pair of cogs, spool carriers adapted to engage with the peripheral notches of said wheels, stationary circular guides arranged concentric with and adjacent to the peripheries of the wheels to hold the spool carriers in engagement therewith, and means for automatically deflecting the spool carriers from the guides of one wheel to the guides of an adjacent wheel, substantially as set forth. 3rd. In a wire fabric machine, a series of aligned intermeshing cogged twister wheels, provided with diametrically opposite peripheral notches, each notch being formed by the space between a pair of cogs, spool carriers adapted to engage with said notches, and automatically operated diagonally opposite switch points for transferring the spool carriers from one twister wheel to the adjacent wheels for rotation with the latter, substantially as set forth. 4th. In a wire fabric machine, a series of intermeshing cogged twister wheels, provided at diametrically opposite points with peripheral notches, spool carriers engaging with the notches of said wheels, circular guides arranged adjacent to the peripheries of the wheels, switch points or fingers arranged at diagonally opposite points and at opposite sides of each twister wheel, and means for automatically adjusting said switch points to deflect the spool carriers from the guides of one wheel to the guides of the adjacent wheels, substantially as set forth. 5th. In a wire fabric machine, an upright frame board, provided with a series of vertically aligned openings, hollow stationary spindles, detachably clamped at one end in the openings of the frame board, a series of intermeshing cogged twister wheels loosely mounted on said stationary spindles at one side of the frame board, spool carriers mounted on the wheels, and transferring mechanism for the spool carriers, substantially as set forth. 6th. In a wire fabric machine, the combination of an upright frame board, provided with a series of vertically aligned openings, hollow stationary spindles fitted at one end in said openings and provided in opposite sides near one end with diametrically opposite notches, open locking keys wedged into said notches to detachably fasten the spindles in place, a series of intermeshing cogged twister wheels mounted on said spindles, spool carriers mounted on the wheels, and transferring mechanism for the spool carriers, substantially as set forth. 7th. In a wire fabric machine, an upright frame board, provided with a series of vertically aligned openings, hollow stationary spindles fitted at one end in said openings and provided in opposite sides near one end with diametrically opposite notches, said spindles being further provided intermediate of their ends at one side of the frame board with annular bearing shoulders, detachable bearing bushings loosely fitted on said spindles at one side of said bearing shoulders and provided at their ends opposite the bearing shoulders, with annular bearing flanges resting flat against one side of the frame board, a series of intermeshing

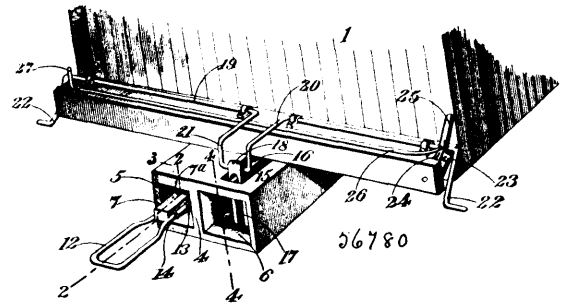
cogged twister wheels, having cylindrical flanged hubs loosely turning on said bearing bushings, and a trifle shorter in length than the distance between the flanges of said bushings and the shoulders of the spindles, wedge locking keys adapted to fit over one end of the spindles and provided with opposite parallel portions engaging in the opposite side notches of the spindles, the spool carriers, and transferring mechanism for the carriers, substantially as set forth. 8th. In a wire fabric machine, an upright frame board, a series of hollow vertically aligned spindles fitted at one end in said board, combined guide and supporting discs loosely mounted on the outer end of said spindles, a series of intermeshing cogged twister wheels mounted on the spindles and having diametrically opposite peripheral notches, spool carriers having neck pieces engaging in the notches of said wheels and at their ends opposite the neck pieces with circular bearing heads having a peripheral contact with said combined guide and supporting discs at the outer ends of the spindles, and suitable transferring mechanism for the spool carriers, substantially as set forth. 9th. In a wire fabric machine, the upright frame board, a series of hollow vertically aligned spindles fitted at one end in said board, combined guide and supporting discs having central bearing collars having an interlocking connection with the outer ends of the spindles and loosely turning thereon, said discs being open at the centre for the passage of the warp of line wires, a series of intermeshing cogged twister wheels mounted on the spindles directly to one side of the frame board, spool carriers provided at one end with neck pieces registering with the notches of the twister wheels and at their opposite ends with circular bearing heads provided with a series of wire guide openings and having a peripheral contact with said combined guide and supporting discs, and spool carrier transferring mechanism, substantially as set forth. 10th. In a wire fabric machine, an upright frame board, a series of hollow vertically aligned spindles fitted at one end in said board, combined guide and supporting discs mounted to loosely rotate on the outer ends of said spindles, a series of intermeshing cogged twister wheels mounted on the spindles directly adjacent to one side of the frame board, spool carriers engaging with the twister wheels at one end and provided at their opposite ends with circular bearing heads peripherally contacting with said combined guide and supporting discs and having a plurality of separate guide openings for the weft or mesh wire wound on the spools of the carrier, and suitable shifting mechanism for the carriers, substantially as set forth. 11th. In a wire fabric machine, an upright frame board, a series of hollow vertically aligned spindles fitted at one end in said board, combined guide and supporting discs mounted for a loose rotation on the outer ends of said spindles, a series of intermeshing cogged twister wheels mounted on the spindles directly adjacent to one side of the frame board, spool carriers essentially comprising a substantially U-shaped frame arm provided at a point intermediate of its ends with an off-standing spool axle, with a neck piece at one end for engagement with the twister wheels and at its opposite end with a circular bearing head having a plurality of wire guide openings and working on the periphery of the combined guide and supporting discs, wire spools loosely mounted on the axles of the spool carriers, combined tension and locking springs detachably fitted on said axles and bearing against one side of the spools, and suitable transferring mechanism for the spool carriers, substantially as set forth. 12th. A spool carrier for ma lines of the class described essentially comprising a frame arm having an off-standing spool axle provided at one end with a squared locking head and short locking studs projected from diametrically opposite sides of said head, a wire spool arranged to turn on said axle, and a longitudinally bowed spring tension and locking plate adapted to bear at its ends against one of the heads of the wire spool and provided intermediate of its ends with a central squared opening and guide notches communicating with the opening at opposite side edges thereof, said plate being adapted to be turned to a position to bring said guide notches in and out of alignment with said locking studs, said squared opening engaging with the locking head when said notches are turned at right angles to the locking studs, substantially as set forth. 13th. In a wire fabric machine, a series of intermeshing cogged twister wheels provided at diametrically opposite points with peripheral notches, circular guides arranged adjacent to the peripheries of the wheels, spool carriers provided at one end with a pair of spaced retaining plates receiving therebetween the cogged peripheries of the wheels and said circular guides, and means for shifting the spool carriers from the guides of one wheel to the guides of the adjacent wheels, substantially as set forth. 14th. In a wire fabric machine, a series of intermeshing cogged twister wheels provided at diametrically opposite points with peripheral notches, circular guides arranged adjacent to the peripheries of the wheels, spool carriers provided at one end with a pair of spaced retaining plates respectively disposed at opposite sides of the cogged peripheries of the wheels and said circular guides, and means for shifting the spool carriers from the guides of one wheel to the guides of the adjacent wheels, substantially as set forth. 15th. In a wire fabric machine, a series of intermeshing cogged twister wheels provided at diametrically opposite points with peripheral notches, circular guides arranged adjacent to the peripheries of the wheels, spool carriers provided at one end with a pair of parallel elliptical retaining plates respectively disposed at opposite sides of the peripheries of the wheels and said circular guides and with a short rounded neck piece connecting said retaining plates and registering in the notches of the twister wheels, and means for de-

flecting the elliptical retaining plates of the spool carriers from the guides of one wheel to the guides of the adjacent wheels, substantially as set forth. 16th. In a wire fabric machine, a series of intermeshing cogged twister wheels, V-shaped guide plates or castings arranged at opposite sides of the series of wheels with their apices or points projected into the re-entrant spaces between the meshing faces of the wheels, said V-shaped guide plates or castings having segmental side portions arranged in the same circular plane as the segmental side portions of the adjacent guide plates or castings, spool carriers provided at one end with a pair of spaced elliptical retaining plates respectively disposed at opposite sides of the peripheries of the wheels and said circular guide plates or castings, and means for deflecting the elliptical retaining plates of the spool carriers from the guides of one wheel to the guides of the adjacent wheel, substantially as set forth. 17th. In a wire fabric machine, a series of intermeshing vertically aligned cogged twister wheels provided with diametrically opposite peripheral notches, V-shaped guide plates or castings arranged at opposite sides of the series of wheels and projecting into the spaces between the meshing faces of the wheels, said V-shaped guide plates or castings having segmental side portions and essentially comprising an outer base flange and a main guide flange projected from the inner side of the base flange intermediate of its edges and at right angles thereto, said main guide flanges being provided with a flat bearing surface arranged parallel with the main base flange, spool carriers provided at one end with a pair of parallel elliptical retaining plates respectively disposed at opposite sides of the main guide flanges of said guide plates or castings, the outer edges of the elliptical plates riding in contact with the outer base flanges at opposite sides of said main guide flanges, said spool carriers being further provided with short neck pieces connecting the retaining plates, registering in the notches of the twister wheels, and riding in contact with the flat bearing surfaces at the inner edges of the main guide flanges, and means for deflecting the elliptical retaining plates of the spool carriers from the guides of one wheel to the guides of the adjacent wheels, substantially as set forth. 18th. In a wire fabric machine, a series of intermeshing vertically aligned cogged twister wheels provided with diametrically opposite peripheral notches, V-shaped guide plates or castings arranged at the opposite sides of the series of wheels and projecting into the spaces between the meshing faces of the wheels, spool carriers provided at one end with a pair of parallel elliptical retaining plates respectively disposed at the opposite sides of the peripheries of the wheels and said guide plate or castings, and with a short rounded neck piece connecting said retaining plates and registering in the notches of the twister wheels, switch points or fingers arranged at diagonally opposite sides of each twister wheel, and means for adjusting said switch points or fingers arranged at diagonally opposite sides of each twister wheel, and means for adjusting said switch points to deflect the elliptical retaining plates of the spool carriers from the guides of one wheel to the guides of the adjacent wheels, substantially as set forth. 19th. In a wire fabric machine, a series of intermeshing vertically aligned cogged twister wheels provided with diametrically opposite peripheral notches and on their front sides with circular guide flanges, circularly aligned guides arranged adjacent to the peripheries of the wheels, and projecting into the spaces between the meshing faces thereof, spool carriers provided at one end with a pair of elliptical retaining plates respectively disposed at opposite sides of said guides, and with a short rounded neck piece connecting said retaining plates and registering in the notches of the twister wheels, oscillatory switch points or fingers arranged at diagonally opposite sides of each twister wheel, and means for adjusting the free ends of the switch points against the circular guide flanges of the twister to deflect the elliptical retaining plates of the spool carriers from the guides of the adjacent wheels, substantially as set forth. 20th. In a wire fabric machine, a series of intermeshing vertically aligned cogged twister wheels provided with diametrically opposite peripheral notches, and front circular guide flanges, V-shaped guide plates or castings arranged at opposite sides of the series of wheels and projecting into the spaces between the meshing faces thereof, said V-shaped plates or castings having segmental side portions arranged in the same circular plane as the corresponding portions of the adjacent guide plates or castings, spool carriers provided at one end with neck pieces engaging the notches of the wheels and with a pair of elliptical retaining plates respectively disposed at opposite sides of the guide plates or castings, oscillatory switch points or fingers pivotally mounted at one end and on every alternate guide plate or casting, in each vertical row of such plates or castings, so as to dispose a pair of switch points or fingers at diagonally opposite sides of each twister wheel, a pair of vertically reciprocating operating bars respectively connecting with all of the switch points or fingers in each vertical row, a link connection between adjacent ends of said operating bars to provide for a simultaneous movement thereof in opposite directions, and a cam device actuated by one of the twister wheels and engaging with one of the operating bars to provide for the simultaneous operation of all of the switch points or fingers substantially as set forth. 21st. In a wire fabric machine, a series of intermeshing cogged twister wheels one of which wheels carries adjusting pins, circular guides arranged adjacent to the peripheries of the wheels, spool carriers engaging with the wheels and having at one end a pair of retaining plates respectively disposed at opposite sides of the circular guides, inwardly projecting switch points or fingers pivotally mounted at their

outer ends beyond diagonally opposite sides of each twister wheel, a pair of vertically reciprocating operating bars respectively having a pin connection with all of the switch points or fingers in each vertical row, an oscillating link connection between the adjacent ends of said oscillating bars to provide for a simultaneous movement thereof in opposite directions, a rectangular yoke fitted on one of the operating bars, and a toothed cam wheel engaged by the adjusting pins of one of the twister wheels and carrying at one side a cam projection working within said yoke to provide for the adjustment of said operating bars simultaneously in opposite directions, substantially as set forth. 22nd. In a wire fabric machine, an upright frame board, a series of intermeshing cogged twister wheels one of which wheels carries on its inner side a pair of spaced adjusting pins, circular guides arranged adjacent to the peripheries of the wheels, spool carriers engaging with the wheels and having at one end a pair of retaining plates respectively disposed at opposite sides of the circular guides, inwardly projecting switch points or fingers pivotally supported at their outer ends beyond diagonally opposite sides of each twister wheel and working over the re-entrant portions of the guides between the meshing faces of the wheels, a pair of vertically reciprocating operating bars respectively connected with all of the switch points or fingers in each vertical row thereof, an oscillating link connection between the adjacent ends of said bars, a rectangular yoke fitted on the inner side of one of the operating bars and provided with straight upper and lower sides and opposite curved end portions, a short stub shaft mounted in the frame board and carrying at its inner end a toothed cam wheel engaged by the adjusting pins of one of the twister wheels and carrying at one side a cam projection having a single eccentrically disposed contact point and a curved bearing portion concentric with the cam wheel, a dial plate mounted on one side of the frame board, a pointer fitted on the outer end of the stub shaft and working over the dial plate, and a spring arranged at the inner side of said cam wheel, substantially as set forth. 23rd. In a wire fabric machine, the combination of a series of intermeshing cogged twister wheels, spool carriers engaging with the twister wheels, circular guides for retaining the carriers in engagement with the wheels a series of movable switch points or fingers working between the wheels to deflect the carriers from the guides of one wheel to the guides of the adjacent wheels, a single operating bar connecting said switch points or fingers and carrying a rectangular yoke, an automatically rotated cam wheel carrying at one side a cam projection working in said yoke and providing for the intermittent elevation and depression thereof, substantially as set forth. 24th. In a wire fabric machine, the combination with the wheeled upright frame carrying weaving mechanism, of a propelling device having a suitably rotated drum on its periphery a tight wrap of a warp or line wire of the fabric, and a clamp carrying said drum and adjustably fitted to the frame to provide for the vertical adjustment of the former, substantially as set forth. 25th. In a wire fabric machine, the combination with the wheeled upright frame carrying weaving mechanism, of a propelling device suitably connected with the frame and having a rotatable drum frictionally engaging with a warp or line wire of the fabric, and a device for regulating the limit of movement of the drum to provide for a corresponding regulation of the length of mesh of the fabric, substantially as set forth. 26th. In a wire fabric machine, the combination with the wheeled upright frame carrying weaving mechanism, of a propelling device comprising a pair of angled clamp plates adjustably embracing opposite side edges of the upright frame, a rotating drum journaled between said clamp plates and having a peripheral wire groove adapted to receive a tight wrap of a warp or line wire of the fabric, a device for regulating the limit of movement of said drum, and lever operated ratchet mechanism for positively rotating the drum in one direction, substantially as set forth. 27th. In a wire fabric machine, the combination with the wheeled upright frame carrying weaving mechanism, of a propelling device comprising a pair of angled clamp plates adjustably embracing opposite side edges of the frame, a rotating drum provided with oppositely disposed spindle projections journaled in said clamp plates and opposite internally toothed ratchet flanges, said drum being adapted to receive a tight wrap of the warp or line wire of the fabric a pair of fixedly positioned check dogs mounted at the inner side of one of the clamp plates for engagement with the teeth of one of the ratchet flanges of the drum, and a hand lever carrying at one end a movable cap plate turning on one of the spindle projections of the drum and provided with oppositely located segmental slots, a pair of adjusting dogs pivotally mounted at the inner side of said movable cap plate and adapted to engage with the teeth of the other ratchet flange of the drum, said adjusting dogs being provided at one side of their pivotal support with finger pins projecting through said segmental slots, substantially as set forth. 28th. In a wire

fabric machine, the combination with the upright frame carrying weaving mechanism, of a propelling device comprising a pair of angled clamp plates embracing opposite side edges of the frames, one of said clamp plates being provided with vertically aligned diametrically opposite limiting pins and a circular series of pin openings, an adjustable stop pin adapted to be fitted in any of the series of pin openings, a rotating drum provided with oppositely disposed spindle projections journaled in said clamp plates and an internally toothed ratchet flange, and a hand lever pivotally supported on one of the spindle projections and carrying a pair of adjusting dogs engaging the teeth of said ratchet flange to provide for the rotation of said drum, said lever being provided at one side adjacent to its pivotal support with a web or lug adapted to engage said adjustable stop pin and also said limiting pins, substantially as set forth. 30th. In a wire fabric machine, the combination with the upright frame carrying weaving mechanism, of a plurality of independently vertically adjustable propelling devices clamped on to the frame at different points, and a single operating connection between said propelling devices to provide for the simultaneous operation thereof, said propelling devices having a frictional engagement with the warp or line wires of the fabric being woven, substantially as set forth. 31st. In a wire fabric machine, the combination with the upright frame carrying weaving mechanism, of a plurality of duplicate propelling devices adjustably clamped on the frame at different points, said propelling devices having ratchet rotated drums receiving a tight wrap of the warp or line wires and operating levers for turning said drums, the operating lever of one of the propelling devices being elongated to provide a hand grasp, and a single continuous connecting bar pivotally connecting the operating levers of said propelling devices, substantially as set forth. 32nd. In a wire fabric machine, an upright frame board carrying weaving and propelling mechanism, of opposite parallel base plates pivotally connected to the frame board at opposite lower side edges thereof and projecting in front and rear of the frame board, said base plates being provided above their pivotal supports with segmental slots and at their opposite extremities with short inwardly disposed bearing axles, clamping bolts working in the segmental slots of said plates and ground wheels or rollers mounted in said axle, substantially as set forth. 33rd. In a machine of the class described, the combination with the interengaged twister wheels, one of which wheels carries at its inner side a bevelled gear wheel, a suitably mounted crank-rotated bevelled gear pinion meshing with said gear wheel, and a gravity check dog mounted above the pinion and provided with a lower bevelled end engaging with the cogs or teeth thereof, substantially as set forth.

No. 56,780. Car Coupler. (Attelage de chars.)

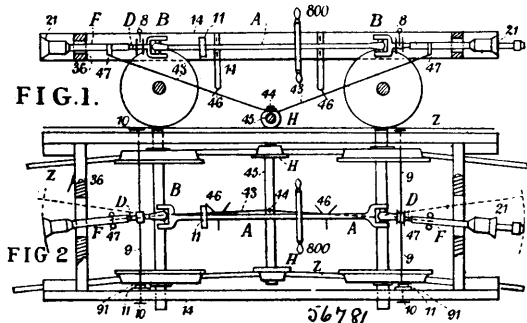


William Everett Whiteside, Midway, West Virginia, U.S.A., 24th July, 1897; 6 years. (Filed 10th July, 1897.)

Claim.—1st. The combination with a draw-head, of an intermediately, horizontally and vertically pivoted bar, a longitudinally adjustable link secured to the forward extremity of the link bar, opposing springs secured within the draw-head in operative proximity to the rear extremity of the link bar, substantially as specified. 2nd. In a car coupler, the combination with a draw-head, of a horizontally and vertically pivoted link bar therein, diametrically opposite noses upon the rear extremity of the link bar behind its pivot, and a plurality of parallel springs secured at one extremity to the draw-head behind the link bar and having their free extremities in operative proximity to the noses, substantially as specified. 3rd. In a car coupler, the combination with a draw bar, of a pivoted spring actuated link bar provided with a slot and a series of apertures on both sides thereof, a link passing through the slot, and prong keys engaging the apertures to retain the link in its adjusted positions, substantially as specified. 4th. In a car coupler, the combination with an apertured draw bar, provided with a longitudinal guide bar, of a slotted pin guided by said guide bar, and means for raising and lowering the pin, substantially as specified. 5th. In a car coupler, the combination with a draw-head and pin, of a crank bar provided with a crank bent to form a depending support for the pin, a spring latch co-operating with the crank bar, and mechanism at both sides of the car for actuating the crank bar and latch, substantially as specified. 6th. The combination with a draw-head, provided with a medial wall defining two casings, of a vertically and horizontally movable link bar in one casing held in its normal position by op-

posite springs, a link adjustably secured to said link bar, a pin in the other casing provided with a slot co-operating with a guide bar to guide said pin, a crank shaft provided with a crank loosely pivoted to the upper extremity of the pin above the draw bar, actuating cranks upon the opposite ends of the crank shaft located at opposite sides of the car, a spring actuated latch adapted to engage one of the actuating cranks, a latch bar pivotally connected to the latch and extending to the opposite side of the car, and handles upon the latch and latch bar, substantially as specified.

No. 56,781. Car Coupling. (Attelage de chars.)

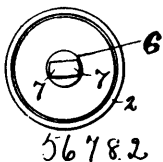


Robert Cooke Sayer, 11 Clyde Road, Redland, Bristol, Gloucester, England, 14th July, 1897; 6 years. (Filed 10th June, 1897.)

Claim.—1st. Automatically adjusting the couplings of cars to bring them relatively with the gauge suitable for coupling with another by the differing plays, of the bodies of cars and that of their bogies or wheels, acting through levers to thrust the coupling laterally when traversing curves, the said couplings being connected by universal tubular joints to tubes extending between the couplings so as to allow such motion and to form a continuous communication for fluid pressure and for mechanical rotation and the said coupling being held the proper way up for coupling by a lever pressed against a flat by a spring, and the longitudinal movable part of each coupling being of polygonal section so as to transmit the rotation whatever the position. 2nd. Controlling the pressure to the couplings by a cock located in the tube and operated from handles at the sides of the car through a cross-rod, lever, grooved sleeve, rack and pinion, said pressure acting on back of piston carrying a head to force piston and head outwards, and when vehicles meet and automatically open valves, to force out piston lugs to engage with openings or recesses in other head and form mechanical coupling and a communication through automatic valves in coupling and lug for pressure between the vehicles, said pressure being also admitted through a non-return valve to a chamber communicating with a smaller area of the piston to withdraw the lugs when pressure at their bases is exhausted through cock, the front of piston being acted on by pressure admitted by cock to withdraw piston and head, said cock also controlling the necessary exhausts.

No. 56,782. Switchboard Annunciator.

(Indicateur de tableau à échange.)

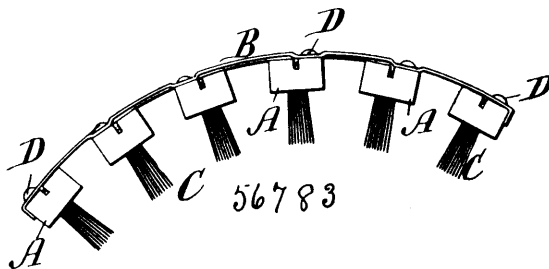


The Bell Telephone Company of Canada, assignee of Newman Henry Holland, both of Montreal, Quebec, Canada, 24th July, 1897; 6 years. (Filed 2nd September, 1896.)

Claim.—1st. In combination with a switchboard face strip, an annunciator magnet, a retaining frame piece for said magnet, said frame piece being grooved at right angles to the length of the magnet and a screw adapted to take into a screwthreaded boring in said face strip adjacent to said frame piece and having a head with a portion thereof cut-away, the remaining portion of the head being adjustable into said groove, for the purpose set forth. 2nd. The combination with the switchboard face strip, having an aperture therethrough, of an annunciator magnet located on the rear side thereof and with its core end projecting through such aperture, a carrying plate for the armature and shutter of the annunciator located on the front side of such face strip, and said core end *m*, and said carrying plate being adapted to interlock, for the purpose set forth. An annunciator having an electro-magnet, with a projecting core end, an armature, a shutter and a carrying plate for the two latter, the projecting core end being annularly grooved and formed with lugs and the carrying plate having an opening through which such lugs can be passed, for the purpose set forth. 4th. An annun-

ciator having an electro-magnet, with a projecting core end, an armature, a shutter and a carrying plate for the two latter, the projecting core end being annularly grooved and formed with tapered lugs and the carrying plate having an opening through which such lugs can be passed, for the purpose set forth. 5th. In an annunciator, the combination with the magnet thereof, of an armature and a shutter, said armature and shutter consisting of a pair of pivotally mounted vertical plates arranged parallel to one another and with the ends of each in approximate horizontal line with the ends of the other, the plate constituting the armature being fulcrumed adjacent to its upper end and provided at its upper end with one or more fingers projecting in the direction of and adjacent to the shutter, and an operating connection between said armature and shutter whereby the shutter will be normally held in a vertical position and allowed to drop when the magnet is energized, and said finger or fingers being caused to bear upon and displace the shutter simultaneously with the movement of the armature, for the purpose set forth. 6th. In an annunciator, a shutter and a carrying plate, said armature and shutter consisting of a pair of vertical plates arranged parallel to one another and with the ends of each in approximate horizontal line with the ends of the other, the plate constituting the armature being fulcrumed adjacent to its upper end to the said carrying plate and provided at its upper end with one or more fingers projecting in the direction of the shutter, and the plate constituting the shutter being fulcrumed adjacent to its lower end to said carrying plate and provided at its lower end with an offset portion adapted to project in the direction of and take under the lower end of the armature, substantially as and for the purpose set forth. 7th. The combination with the switchboard face strip, having an aperture therethrough, of an annunciator magnet located on the rear side thereof and with its core end projecting through each aperture, an inclosing casing adapted to inclose said magnet and bear at its forward end upon the rear side of said face strip, a carrying plate upon which said armature and shutter are operatively mounted, and said carrying plate being located on the front side of such face strip, means for detachably connecting said carrying plate to the forward end of said magnet, the rear end of said core being provided with a screw-threaded boring longitudinally thereof, a screw adapted to project through an opening in said inclosing casing and take into said screw-threaded boring, substantially as and for the purpose set forth.

No. 56,783. Brush. (Brosse.)

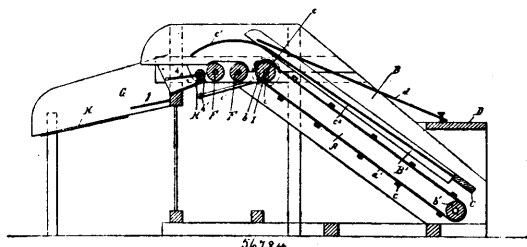


Oliver Morehouse Farrand, New York, State of New York, U.S.A., 24th July, 1897; 6 years. (Filed 28th June, 1897.)

Claim.—1st. A flexible brush, composed of strips as *A*, provided with bristles *C* or their equivalents, and the flexible back piece or pieces as *B*, all constructed and combined substantially as and for the purposes hereinbefore specified. 2nd. A brush for bicycle tires, consisting of the following elements in combination: a flexible spring back and suitable cross strips provided with tufts of brush material, substantially as specified.

No. 56,784. Straw Elevator and Shakers.

(Monte-paille et appareil à secouer.)



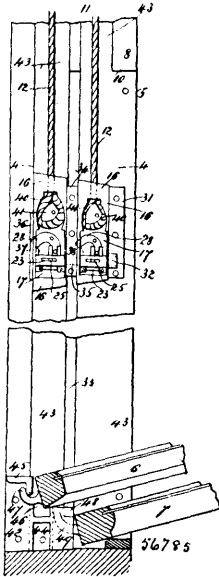
John Archibald Weeks, Alberton, P.E.I., Canada, 24th July, 1897; 6 years. (Filed 29th June, 1897.)

Claim.—1st. The combination with a frame, and an inclined elevator supported by said frame, of rollers journalled at the upper part of the elevator, spring rods extending over the elevator and provided with curved upper-end portions over the said rollers, rods for pressing the straw onto the said spring rods and elevator, and

driving devices for operating the said elevator and rollers, substantially as set forth. 2nd. The combination with a frame, and an inclined elevator supported by the said frame, of a chute at the rear part of the frame, a bar provided with a row of prongs and arranged over the said chute, means for oscillating the said bar, rollers arranged between the upper part of the elevator and the said bar, driving devices for operating the said elevator and rollers, and spring bars for supporting the straw arranged over the said elevator and rollers, substantially as set forth.

No. 56,785. Support for Window Sashes.

(Support de caïres de fenêtres.)



George Johnstone, New York, State of New York, U.S.A., 24th July, 1897; 6 years. (Filed 29th June, 1897.)

Claim.—1st. A window frame provided with window sashes and the herein described devices for connecting the sashes with counterbalance weights, and cables, chains or ropes, consisting of vertically movable blocks, connected with the ends of said cables, chains or ropes, and corresponding plates secured to the sashes with which said blocks are adapted to be connected, said blocks being adapted to be connected with said plates, by moving the sashes backwardly into their proper position, and said blocks being also provided with locking devices, which are operated by said plates, when the sashes are pulled outwardly, so as to lock the blocks to the window frame, and said locking devices being operated to release the blocks from the frame when the window sashes are moved backwardly into position, substantially as shown and described. 2nd. A window frame provided with window sashes and the herein described devices for connecting the sashes with counterbalance weights, and cables, chains or ropes, consisting of vertically movable blocks, connected with the ends of said cables, chains or ropes, and corresponding plates secured to the sashes with which said blocks are adapted to be connected, said blocks being adapted to be connected with said plates, by moving the sashes backwardly, into their proper position, and said blocks being also provided with locking devices, which are operated by said plates, when the sashes are pulled outwardly, so as to lock the blocks to the window frame, and said locking devices being operated to release the blocks from the frame when the window sashes are moved backwardly into position, said frame and said sashes being also provided at their lower ends with pivotal or other supports, whereby the sashes may be swung outwardly when disconnected from the locking blocks by means of which they are connected with the counterbalance weights, substantially as shown and described. 3rd. A window frame provided with window sashes and the herein described devices for connecting the sashes with counterbalance weights, and cables, chains or ropes consisting of vertically movable blocks, connected with the ends of said cables, chains or ropes, and corresponding plates secured to the sashes with which said blocks are adapted to be connected, said blocks being adapted to be connected with said plates, by moving the sashes backwardly, into their proper position, and said blocks being also provided with locking devices, which are operated by said plates, when the sashes are pulled outwardly, so as to lock the blocks to the window frame, and said locking devices being operated to release the blocks from the frame when the window sashes are moved backwardly into position, said frame and said sashes being also provided at their lower ends with pivotal or other support, whereby the sashes may be swung outwardly, when disconnected from the locking blocks by means of which they are connected with

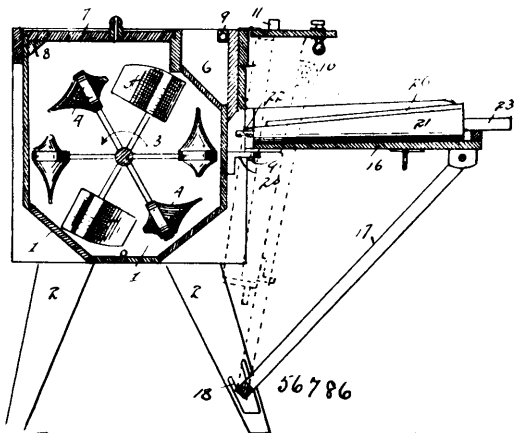
the counterbalance weights, and the lower side portions of the heads or strips by which the sashes are held in place being removable, substantially as shown and described. 4th. The herein described means for connecting window sashes, with counterbalance weights, which consist of locking blocks which are connected with the ends of the cables, with which the counterbalance weights are connected, and corresponding plates which are connected with the window sashes, said blocks and said plates being provided with locking devices, and said sashes being adapted to be disconnected from said blocks by pulling the upper ends thereof, outwardly, the lower ends being provided with suitable supports, and said locking devices being adapted to operate so as to lock the locking blocks connected with the cables to the window frame, when the upper ends of the sashes are pulled outwardly, and to release said blocks from said frame when the sashes are moved backwardly into position therein, substantially as shown and described. 5th. A window frame provided with window sashes and the herein described devices for connecting the sashes with counterbalance weights, and cables, chains or ropes, consisting of vertically movable blocks with which the cables by which the counterbalance weights are supported, are connected, said blocks being adapted to operate in connection with the plates secured to the sides of the sash, and said blocks being provided with locking devices which are operated by a shoulder or projection formed on said plates, and by which the blocks are locked to the window frame, when the sash is pulled outwardly, and at the same time disconnected from the sash or the plates secured thereto, said locking devices consisting of transversely movable locking bars, mounted in said blocks, or in chambers formed therein, and a lug or projection formed on said plate, substantially as shown and described. 6th. A window frame provided with window sashes and the herein described devices for connecting the sashes with counterbalance weights, and cables, chains or ropes, consisting of vertically movable blocks with which the cables by which the counterbalance weights are supported, are connected, said blocks being adapted to operate in connection with plates secured to the sides of the sash, and said blocks being provided with locking devices, which are operated by a shoulder or projection formed on said plates, and by which the blocks are locked to the window frame, when the sash is pulled outwardly, and at the same time disconnected from the sash or the plates secured thereto, said locking devices consisting of transversely movable locking bars, mounted in said blocks, or the chambers formed therein, and a lug or projection formed on said plate, and with levers pivoted in said chambers, said levers and said locking bars being adapted to be projected at each side of the locking blocks, and to engage with suitable keepers at the sides thereof, substantially as shown and described. 7th. The herein described means for connecting the counterbalance weights, of a window sash therewith, which consists of plates secured to the sides of the sash and provided with outwardly directed shoulders or projections at the ends thereof, locking blocks connected with the ends of the cables with which the counterbalance weights are connected, and adapted to be connected with said plates when the window sash is moved backwardly into position, said blocks being provided with chambers in their upper ends, and with grooves or passages communicating therewith, and cam blocks pivoted in said chambers, and the ends of the cables being adapted to be passed into said chambers, and around said cam blocks, substantially as shown and described. 8th. The herein described means for connecting the counterbalance weights, of a window with the sashes thereof, which consists of locking blocks connected with the ends of the cables with which the counterbalance weights are connected, said locking blocks being adapted to be detachably connected with said sashes, and to be locked thereto, when the sashes are moved backwardly into position, in the window frame, and to be detached therefrom when the sashes are pulled outwardly, and at the same time locked to the frame, and the lower ends of the frame being provided with supports for the lower ends of the sashes, on which said sashes may be turned outwardly when disconnected from the counterbalance weights, substantially as shown and described. 9th. The herein described means for connecting the counterbalance weights of a window with the sashes thereof, which consists of locking blocks connected with the ends of the cables with which the counterbalance weights are connected, said locking blocks being adapted to be detachably connected with said sashes, and to be locked thereto, when the sashes are moved backwardly into position, in the window frame, and to be detached therefrom when the sashes are pulled outwardly, and at the same time locked to the frame, and the lower ends of the frame being provided with supports for the lower ends of the sashes, on which said sashes may be turned outwardly when disconnected from the counterbalance weights, and the window frame being provided with supports for the upper ends of the sashes when the latter are disconnected from the counterbalance weights, substantially as shown and described.

No. 56,786. Churn. (Baratte.)

John F. Class, Pleasant Hill, Ohio, U.S.A., 24th July, 1897; 6 years. (Filed 2nd July, 1897.)

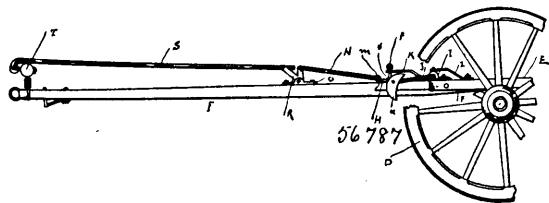
Claim.—1st. In a churn, the combination of a casing, a horizontal shaft extending therethrough, a series of arms carried by the shaft, and a dasher on the end of each arm at right angles thereto, said dasher being substantially circular in cross sections, and being of considerable diameter tapered at a point toward its forward end,

whereby each dasher will cleave the cream readily, and will form a continuous circular spray as it passes therethrough, substantially as



described. 2nd. In a churn, the combination of a casing, a horizontal shaft therethrough, carrying a series of radial arms, the arms midway the length of the shaft carrying a series of wedge-shaped dashers having broad opposite sides, and the arms at each end of the shaft carrying dashers of considerable diameter, and circular in cross section and tapering gradually toward their forward pointed ends, substantially as described. 3rd. The combination of the churn body, of the butter-working apparatus, comprising swinging support 17, and removably supported at its inner end upon the adjacent side of the churn, said table being provided with side flanges and adapted to swing down at its inner end upon support 17, and be folded therewith up against the churn, and devices for holding and locking the table up against the churn body, and in its outer working position, substantially as set forth.

No. 56,787. Vehicle Brake. (Frein de voiture.)



Otis M. Kirlin, Montevideo, Minnesota, U.S.A., 24th July, 1897; 6 years. (Filed 2nd July, 1897.)

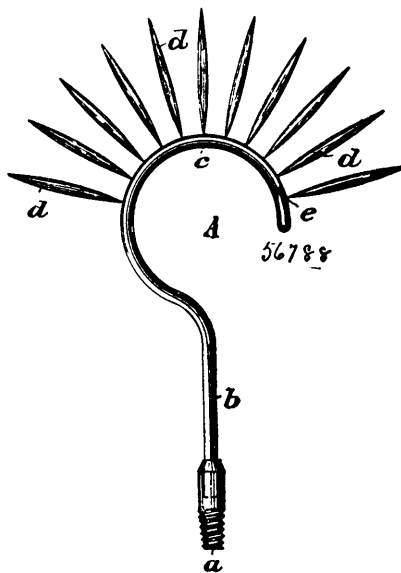
Claim.—1st. The combination with a vehicle tongue and spreading bar, of a plate slidingly attached to said tongue, said plate carrying evener upon forward end and brake-bar at rear end, and connected to spreading bar by means of rods and lever mechanism, and adapted to move in connection therewith, connection of plate to spreading bar being made by means of rods with intervening lever above tongue, forward end of outer rod passing above spreading bar, thence being curved downward and attached to same by means of an eyebolt, lever of rod and lever device being adapted to provide great leverage, and having a rocking movement through being pivotally connected to a bracket firmly secured to tongue, all substantially as set forth. 2nd. The combination with a vehicle tongue and plate slidingly attached thereto, of a brake-bar loosely attached to said plate by means of brackets adjustably secured to same, said brake-bar carrying shoes at its outer ends, said shoes being laterally adjustable and pivotally attached to brake-bar in such a position as to assume a parallel position to peripheries of wheels with which they are adapted to come in contact, said brake-bar being adapted to permit of vehicle being backed without resistance from brake, all substantially as set forth. 3rd. The combination with a vehicle tongue and plate slidingly attached thereto, said plate carrying a brake-bar, of a collar securely attached to brake-bar, and having a set-screw or other projection, of a plate or bracket adjustably attached to tongue and adapted to engage projection on collar to partially rotate brake-bar for the purpose of retaining brake shoes from contact with wheels, substantially as set forth.

No. 56,788. Acetylene Gas Burner.

(Brûleur de gaz acétylène.)

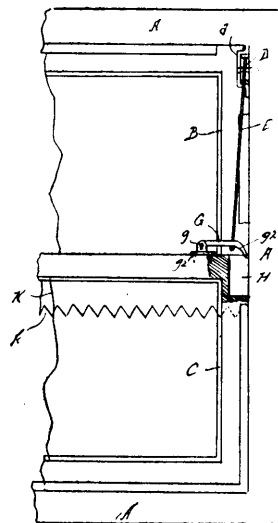
Wilhelm Michael Traine and Peter Gustav Ruth, assignee of Karl Heinrich Knapp, all of Mainz Hesse, Germany, 24th July, 1897; 6 years. (Filed 7th May, 1897.)

Claim.—A multiple hole-burner for acetylene gas, characterized thereby, that the burner is so formed, that the distance between



the flame points is greater than between the bases of the flames, in order to supply sufficient air for soot-free burning.

No. 56,789. Sash Balance. (Contre poids de croisée.)



Jacob Olefinger, Meriden, Connecticut, U.S.A., 26th July, 1897; 6 years. (Filed 2nd July, 1897.)

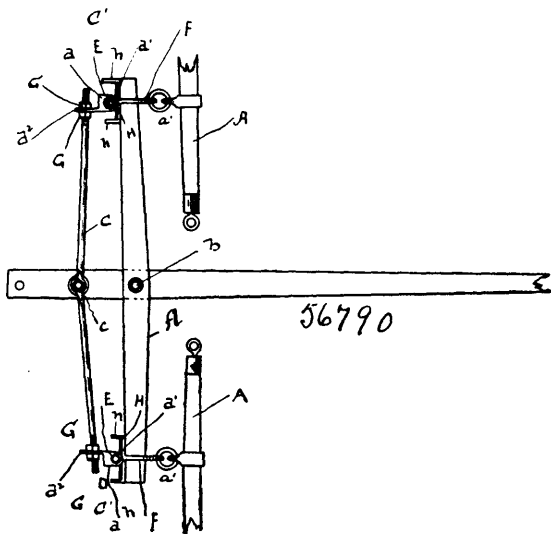
Claim.—The combination with a window-frame, and the upper and lower sashes mounted therein, of a pulley connected with the frame adjacent to the upper portion of the upper sash, a cord or chain one end of which is passed over said pulley, and secured to the upper sash, and the other end of which is passed through or connected with an arm or lever, one end of which is pivotally connected with the lower sash, and the other end of which is adapted to bear upon the frame adjacent thereto, and the lower sash adjacent to said lever being provided with a cavity or recess, substantially as shown and described.

No. 56,790. Doubletree. (Palonnier.)

William J. Smith, Knox, Pennsylvania, U.S.A., 26th July, 1897; 6 years. (Filed 2nd July, 1897.)

Claim.—1st. In an improved draft-equalizing doubletree, comprising two rods or bars relatively arranged and respectively pivoted substantially as set forth, in combination with adjustable connecting devices carried at the ends of the rear bar, and secured in connection

with the front bar and having a sliding movement with relation thereto, said front bar provided with longitudinal bearing-plates at

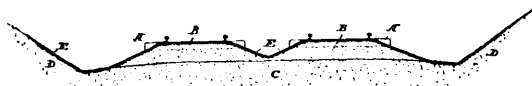


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the ends, substantially as and for the purpose set forth. 2nd. An improved draft-equalizing doubletree, comprising two rods or bars relatively arranged and respectively pivoted substantially as set forth, in combination with connecting brackets or devices carrying rollers secured upon the ends of the rear bar and carrying pivoted links engaging the ends of the front bar and having a sliding movement with relation thereto, said front bar being provided with bearing-plates having projections thereon secured on the ends, and means for adjusting the brackets longitudinally upon the rear bar, substantially as and for the purpose set forth. 3rd. An improved draft-equalizing doubletree, comprising two rods or bars respectively arranged and relatively pivoted substantially as set forth, in combination with connecting devices carried upon the ends of the rear bar and having a connection with the front bar and a sliding movement with relation thereto, bearing-plates having projections thereon adapted to retain and limit the movement of the said connecting devices located on the ends of the front bar, and means for adjusting said connecting devices upon their carrying bars, in combination with the whiffletrees, substantially as and for the purpose set forth.

No. 56,791. Railway Road-bed.

(*Fondation de chemin de fer.*)



56791

James H. Nichol, Camden, New Jersey, U.S.A., 26th July, 1897; 6 years. (Filed 2nd July, 1897.)

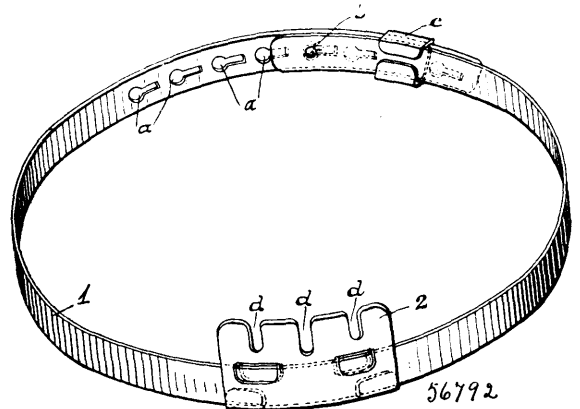
Claim.—1st. A railway road-bed of fine material, such as gravel, sand or cinder from bituminous or anthracite coal, having its surface treated with heavy oil, as and for the purpose set forth. 2nd. A railway road-bed and track having the exposed surfaces of the road-bed and ties treated with heavy oil, as and for the purpose set forth.

No. 56,792. Skirt Supporter. (*Support de jupes.*)

Joseph M. Flanery, Braddock, Pennsylvania, U.S.A., 26th July, 1897; 6 years. (Filed 3rd July, 1897.)

Claim.—1st. A skirt supporter, comprising a flexible band adapted to be secured around the waist and slidable plate mounted thereon, provided with means to engage fasteners on the band of the skirt, substantially as described. 2nd. A skirt supporter, comprising a flexible band adapted to be secured around the waist, and a slidable plate mounted thereon having a number of vertical slots in its upper edge to engage buttons or other fasteners on the band of the skirt, substantially as described. 3rd. A skirt supporter, comprising

a flexible band, adapted to be secured around the waist, and a slidable plate mounted thereon, provided with a number of



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buttons near its upper edge to engage fasteners on the band of the skirt, substantially as described.

No. 56,793. Spark Catcher and Smoke Burner.

(*Arrête-étincelle et appareil fumivore.*)

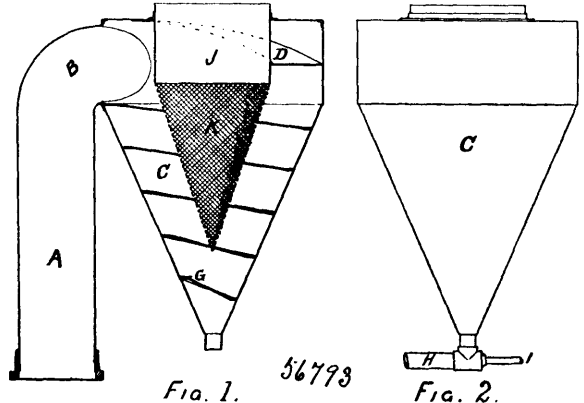


Fig. 1.

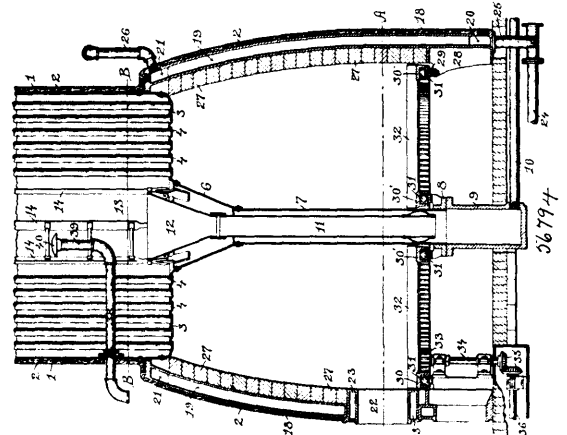
Fig. 2.

56793

Thomas Wilson Paterson, Victoria, B.C., Canada, 26th July, 1897; 6 years. (Filed 3rd July, 1897.)

Claim.—The combination with a locomotive or other boiler, of pipe A, cone C, deflector D, baffle plate E, bolute bar G, pipe H, exhaust steam jet I, extension piece J, wire gauze cone K, substantially as and for the purpose hereinbefore set forth.

No. 56,794. Steam Generator. (*Générateur à vapeur.*)



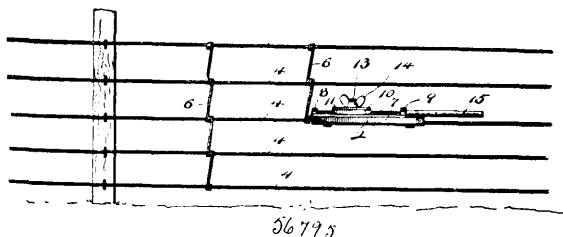
56794

David Moulton Thompson, Providence, Rhode Island, U.S.A., 26th July, 1897; 6 years. (Filed 3rd July, 1897.)

Claim.—1st. In a vertical tubular steam generator, the combination with the cylindrical shell, the end tube sheets, the tubes placed on radial lines, and the central well of the conical cylinder 6, the tube 7, the mud drum 8 provided with the blow-off pipe 10, the

circulating tube 11 provided with the funnel shaped end 12, and the feed water supply pipes 38 and 39 having the outlet protected by the cap 40, as described. 2nd. The combination with a vertical tubular steam generator, of a cellular casing disconnected from the steam generator and provided with water supply inlets and hot water outlets, constructed to form the support of the generator and inclosure for the furnace, as described. 3rd. The base for a vertical tubular steam generator, consisting in a number of cellular segmental sections connected at the top and bottom to form a continuous water space, lined on the inner surface with a refractory material, as described. 4th. In a steam generator, in combination, a vertical cylindrical shell, an annular group of tubes surrounding a central open well within the cylindrical shell, a steam dome extending above the upper tube sheet and provided with a steam outlet and a manhole, a central column connected with the lower tube sheet and extending below the grate, a cellular casing constructed to support the cylindrical shell and inclose the furnace, a circular grate and mechanism for rotating the same, a feed water pipe connected with the cellular casing, a hot water outlet for the cellular casing, a feed water pipe connected with the central column, and connections between the hot water outlet from the cellular casing and the feed water pipe supplying the central column, whereby the feed water supplied to the cellular casing is heated and delivered to the steam generator, as described. 5th. The combination with a vertical tubular steam generator, a central cylindrical extension from the lower tube sheet to a mud drum below the grate surface, of an annular fire-box provided with an opening for supplying fuel, the annular grate 32, the ring shaped bearing bars 30 and 30¹ supported on bearing balls, and a gear and pinion mechanism for rotating the grate, as described. 6th. In a base forming the furnace and support for a vertical steam generator, the combination with the sections 18 vertically divided by the ribs 19 into cellular water spaces, the openings 20 and 21 and brackets 28, the supporting ring 29, the channelled bearing balls 30, the balls 31, the grates 32, and the fire-brick lining 27, constructed to heat the feed water before it is supplied to the steam generator, as described.

No. 56,795. Fence Machine. (Machine à clotures.)



56795

Edward Redmond, Perry, Michigan, U.S.A., 26th July, 1897; 6 years. (Filed 5th July, 1897.)

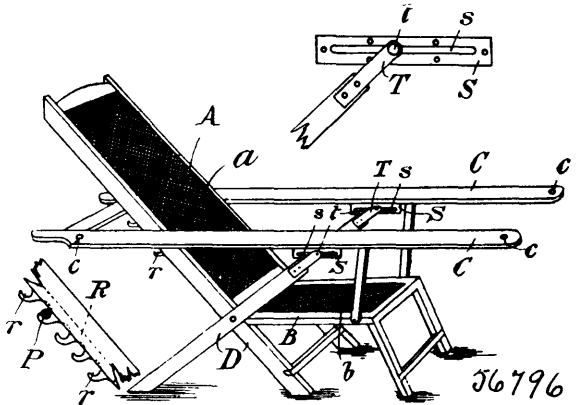
Claim.—1st. A hand tool or machine for applying stay or brace wires to the runner or line wires of wire fencing, comprising a stock or frame provided with means for holding the stay wire, and consisting of a rabbeted bar, a plate hinged to the said bar and snugly fitting within the rabbeted portion thereof, the said plate and bar having a longitudinal passage formed between them, and means for securing the plate when closed, substantially as set forth. 2nd. In a machine or hand, tool for applying stay or brace wires to the runner or line wires of wire fencing, the combination of a stock or frame, lugs located at or near the ends of the stock and provided with openings, and a tension device intermediate of the lugs, consisting of a block channelled in its outer side, a tension plate having a rib to enter the channel of the said block, and means for moving the tension plate towards the aforesaid block to grip the brace wire with greater or less force, substantially as set forth. 3rd. In a machine or hand tool, for applying brace or stay wires to the runner or line wires of wire fencing, the combination of a stock or frame, lugs at or near the ends of the stock and provided with openings, a tube or pipe applied to the rear lug, and a tension device intermediate of the lugs, substantially as set forth. 4th. A machine or hand tool for applying stay wires to the runners in the construction of wire fencing, comprising a stock composed of a bar and a plate hinged together and having a longitudinal passage formed between them, and provided with means for securing them when closed, a plate applied to one side of the stock and having lugs at its ends and a channelled block intermediate of its ends, a tension plate having a rib to enter the channel of the said block, a threaded stud and thumb nut for advancing the tension plate towards the block to grip the stay wire more or less firmly, and a tube or pipe applied to the rear lug, substantially as shown for the purpose set forth.

No. 56,796. Folding Deck and Camp Chair and Bedstead. (Siège et lit de camp pliant.)

George Wynne Cole, Arlesdene, Boscomb, Bournemouth, Hants, England, 26th July, 1897; 6 years. (Filed 5th July, 1897.)

Claim.—1st. The folding deck and camp chair constructed substantially as described and illustrated. 2nd. The folding chair,

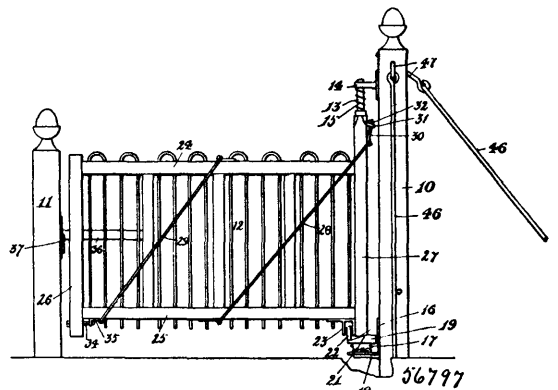
as shown and described. 3rd. The folding chair, or lounge adjustable by means of the rack R and bar P, substantially as shown and



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described. 4th. The folding chair adjustable and capable of being converted into a bedstead, substantially as shown and described. 5th. For use in a folding chair or lounge, the rack and bar device, substantially as shown and described.

No. 56,797. Gate. (Barrière.)



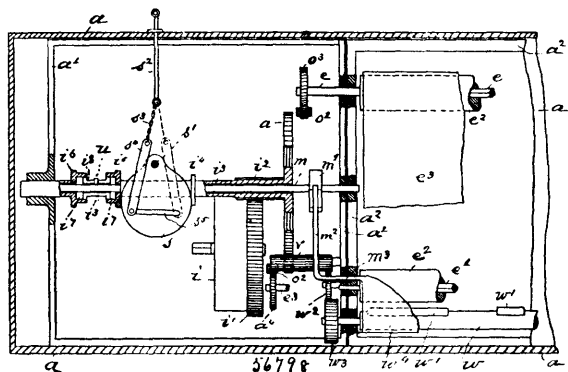
56797

Joseph Camille Laporte, Maniwaki, Quebec, Canada, 26th July, 1897; 6 years. (Filed 5th July, 1897.)

Claim.—1st. A gate having an upper hinge consisting of a hinge pin journalled and free to slide vertically in an eye secured in the gate post, a lower hinge consisting of a hinge pin journalled in a socket in a stud carried by a bracket secured in the said gate post, a revoluble disc journalled on the said stud, an annular upturned rim on the upper face of the said disc, the said rim being lower at one side than the other, forming two inclined planes, a roller journalled in brackets secured to the gate and running on the said rim, substantially as set forth. 2nd. A gate adapted to be opened and closed by the wheel of a passing vehicle, having an upper hinge consisting of a hinge pin journalled and free to slide vertically in an eye secured to the gate post, a lower hinge consisting of a hinge pin journalled in a socket in a stud carried by a bracket secured to the said post, a pulley journalled on the said stud, an annular rim on the upper face of the said pulley, the said rim being lower on one side than the other, thus forming two inclined planes, a roller journalled in brackets secured to the gate and running on the said rim, chains or chains and wires or rods connecting the said pulley with two other pulleys, the axles of which are journalled in suitable bearings in the road-bed, one on either side of the gate, and plates or cranks in the said axles projecting above the road-bed in the track of the wheels of vehicles passing through the said gate, substantially as set forth. 3rd. A gate adapted to be opened and closed by the wheel of a vehicle passing through, the combination with the revoluble pulley 17, the inclined planes 20 and 21, formed on the upper surface of the said pulley, of a roller or friction pulley journalled in brackets on the gate adapted to raise the gate and run on the said inclined planes so the said pulley is revolved, substantially as set forth. 4th. In a gate adapted to be opened and closed by the wheel of a vehicle passing through, the combination with a gate having its lower hinge pin journalled in a socket in a stud on which is journalled a revoluble disc, a roller carrying the weight of the said gate running on inclined planes on the upper surface of the said disc, a rigid latch bar secured to the said gate and a spring catch on the locking post, and a similar catch on the post holding the gate open, the said inclined planes being adapted to raise the gate and so disengage the latch bar from the said

catches as the disc is revolved and allow the pulley carrying the gate to run down the inclined plane, substantially as set forth. 5th. In a gate, the combination with the frame of the gate, of the diagonal braces 28 and 29, each provided with bolts and draw-nuts, substantially as set forth. 6th. In a gate, the combination with the rigid latch bar secured to the gate of the pivoted catch on the gate post, the said catch consisting of a rounded front portion 40, a notch 30, projection 41, a stop 42, engaging the said projection, a handle 33, and a spring 43, adapted to hold the said catch in its normal position, substantially as set forth.

No. 56,798. Station Indicator. (Indicateur de station.)

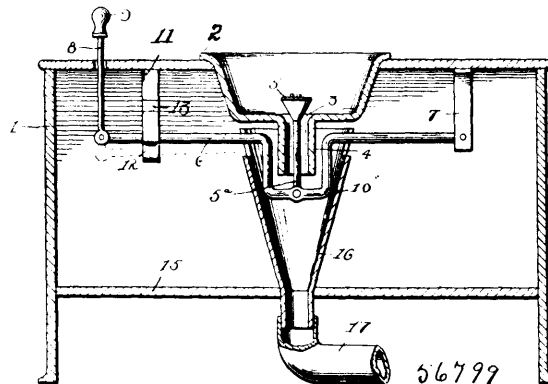


Karl Mastard, 8 Stralauer Strasse, and Wilhelm Beerensson, 98 Kloster Strasse, both of Berlin, Prussia, Germany, 26th July, 1897; 6 years. (Filed 5th July, 1897.)

Claim.—1st. In a station indicator, the combination with two rollers arranged one above the other, a band wound upon one of said rollers and adapted to be wound from the respective roller to and upon the other one, and being provided with the station names and other informations, axles carrying said rollers, and cog-wheels secured to said axles, and being arranged in different planes, of a displaceable cog-wheel located between said other two and adapted to be thrown into gear with one or the other of the same, and means for turning and displacing said third cog-wheel, substantially as and for the purpose hereinbefore set forth. 2nd. In a station indicator, the combination with two rollers arranged one above the other, and a band wound upon one of said rollers and adapted to be wound from the respective roller to and upon the other one, and being provided with the station names and other informations, of a shaft, a sleeve arranged upon said shaft, a pinion and a cog-wheel secured to said sleeve, and means for coupling said sleeve with and uncoupling it from said shaft, and for displacing it upon the same, said cog-wheel being arranged to transmit motion to one or the other of said rollers, and means for driving said pinion, substantially as and for the purpose set forth. 3rd. In a station indicator, the combination with two rollers arranged one above the other and a band wound upon one of said rollers and adapted to be wound from the respective roller to and upon the other one, and being provided with the station names and other informations, of a shaft, a sleeve arranged upon said shaft, a pinion and a cog-wheel secured to said sleeve, and means for driving said pinion, hollow discs 15, 16, forming parts of the sleeve, slits 18 provided in the sleeve and connecting the annular spaces of said hollow discs, a pin *u* secured to the shaft and adapted to take into said slits and said annular spaces, and means for displacing the sleeve upon the said shaft, said cog-wheel being arranged to transmit motion to one or the other of said rollers according to the direction of displacement of the sleeve, substantially as and for the purpose hereinbefore set forth. 4th. In a station indicator, the combination with two rollers arranged one above the other, and a band wound upon one of said rollers and adapted to be wound from the respective roller to and upon the other one, and being provided with the station names and other informations, of a shaft, a sleeve arranged upon said shaft, a pinion and a cog-wheel secured to said sleeve, and means for driving said pinion, hollow discs 15, 16, forming parts of the sleeve, slits 18 provided in the sleeve and connecting the annular spaces of said hollow discs, a pin *u* secured to the shaft and adapted to take into said slits and said annular spaces, a disc 14 also fixed to the sleeve, a pendulum-like plate *s*, arranged between this disc and the hollow disc 15, a rod arranged above said plate, and means for connecting said rod with one or the other side of the plate *s*, substantially as and for the purpose hereinbefore set forth. 5th. In a station-indicator, the combination with two rollers arranged one above the other and a band wound upon one of said rollers and adapted to be wound from the respective roller to and upon the other one, and being provided with the station-names and other informations, of a shaft, a sleeve arranged upon said shaft, a pinion and a cog-wheel secured to said sleeve, and means for rotating said pinion and cog-wheel and displacing them upon said shaft, a ratchet-wheel secured to the latter, a pawl adapted to co-operate with said ratchet-wheel, a movable vertical plate connected with said pawl, a roller with

types arranged behind said plate, slots arranged in front of said plate in the casing of the indicator, and means for turning said roller with types, substantially as and for the purpose hereinbefore set forth. 6th. In a station indicator, the combination with two rollers arranged one above the other and a band wound upon one of said rollers and adapted to be wound from the respective roller to and upon the other one, and being provided with the station names and other informations, of a shaft, a sleeve arranged upon said shaft, a long pinion and a cog-wheel secured to said sleeve, and means for rotating the latter and displacing it upon said shaft, another long pinion arranged so as to be in constant gear with said cog-wheel, a roller with types, and wheels connecting this roller to said other long pinion, a movable plate arranged in front of said roller with types, a pawl secured to said plate, a ratchet-wheel adapted to co-operate with said pawl and secured to the said shaft, substantially as and for the purpose hereinbefore set forth.

No. 56,799. Valve Apparatus for Wash Bowls and Sinks. (Appareil de soupape pour eviers.)



Burton E. Loadwick, Harrisville, New York, U.S.A., 26th July, 1897; 6 years. (Filed 5th July, 1897.)

Claim.—1st. In valve apparatus for sinks and wash bowls, the combination of the bowl provided with a valve plug controlling the outlet therein, a movable valve lever connected with and adapted to operate said valve plug, and a handle for operating the valve lever, substantially as described. 2nd. In valve apparatus for sinks and wash bowls, the combination of a casing, a wash bowl or basin set in the top of the casing and provided with an outlet opening and a plug valve controlling the same, a valve lever on the interior of the casing and connected with and adapted to operate the said valve plug, and a handle connected with the free end of the valve lever and exposed on the exterior of the casing, substantially as described. 3rd. In valve apparatus for wash bowls and sinks, the combination of a stand or casing, a wash bowl and sink set into the top of the same and provided with an outlet opening and a vent tube projecting downward therefrom, a valve rod movable in said vent tube and carrying a plug valve controlling the said outlet opening, a valve lever having one end pivoted within the casing and connected intermediate its length with the said valve rod, and a handle attached to the free end of the valve lever and projecting exteriorly of the casing, substantially as described. 4th. In valve apparatus for wash bowls and sinks, the combination of a stand or casing, a wash bowl set in the top thereof and provided with an outlet opening and a vent tube projecting downward therefrom, a valve lever pivoted on the interior of the casing and formed intermediate its ends with a substantially U-shaped offset inclosing the said vent tube, a valve rod attached to the said offset and extending through the vent tube and carrying a valve plug controlling the said outlet opening, a handle connected with the free end of the valve lever and exposed on the exterior of the casing, and a catch device to hold the valve plug open, substantially as described. 5th. In valve apparatus for wash bowls and sinks, the combination of a stand or casing, a wash bowl and sink set into the top of said casing and provided with an outlet opening and a vent tube projecting downward therefrom, a cross bar on the interior of the casing, a funnel-shaped eduction tube supported thereby and having its upper flaring end inclosing the offset portion of the valve lever and the vent tube of the basin, and a waste pipe connected with the lower end of said eduction tube, substantially as described.

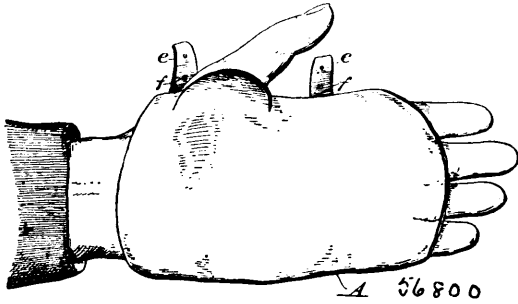
No. 56,800. Hand Guard or Protector.

(Garde et protecteur pour la main.)

George W. Sievers, New Orleans, Louisiana, U.S.A., 26th July, 1897; 6 years. (Filed 5th July, 1897.)

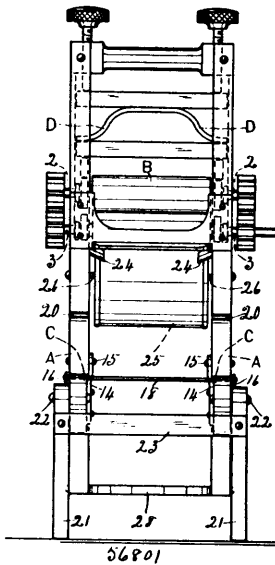
Claim.—1st. A hand guard or protector, consisting of a main body portion adapted to cover the palm of the hand, said body portion being provided at one side and adjacent the rear end thereof with a slit or opening for the reception of the thumb, buckles at one side edge of the protector, and strips at the other side edge thereof adapted to extend across the back of the hand and engage the said

buckles to hold the protector in position upon the hand substantially as described. 2nd. In a guard or protector for hands, consist-



ing essentially of a main body portion adapted to cover the palm of the hand, said body portion being provided at one side and adjacent the rear end thereof with a slit or opening, the material displaced by the said opening forming a flap adapted to cover the palm of the hand at the base of the thumb, and the edge of the material at the slit being bevelled on its under side, buckles at one side of the protector, and straps at the other side adapted to extend across the back of the hand and engage with the said buckles, substantially as described.

No. 56,801. Clothes Wringer. (Essoreuse.)

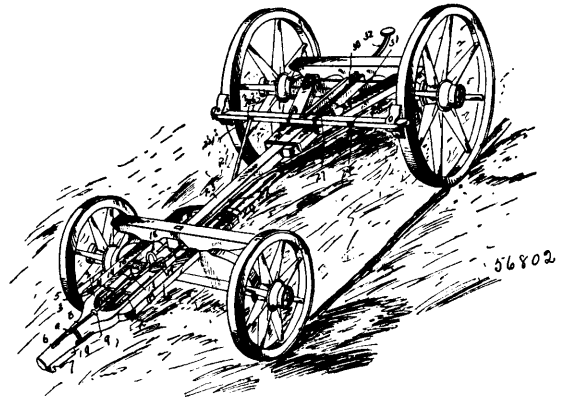


John Hamilton Wilson, Cleveland, Ohio, U.S.A., 26th July, 1897; 6 years. (Filed 6th July, 1897.)

Claim.—1st. A machine of the character described, consisting of a framework having two connected sides with vertical openings in line with each other to receive casings for ball bearings for horizontal rubber rollers having shafts through said bearings, provided with sleeves, having outer shoulders, to engage with at end pressure and retain the balls in position in their respective casings, as described. 2nd. A machine of the character described, consisting of a vertical framework, having vertical openings in horizontal line, vertical grooves in said openings for insertion of casings having through openings and circular concaved recesses for balls as bearings, horizontal rollers between the sides of the frame, shafts through the rollers, and extending through the frames, said shafts provided with secured sleeves, to revolve on and with said balls, shoulders at outer ends of said sleeves to engage with the balls at end pressure of rollers, as described. 3rd. In a machine of the character described, ball bearing casings having side flanges for insertion in grooves in the vertical openings of the frame, rollers having through shafts with secured sleeves, outer shoulders on the sleeves to operate with the balls to retain the rollers in position when under end pressure, as described. 4th. A machine of the character described, consisting of the framework capable of receiving rollers, base arms pivoted to the frame, lower widened out base of frame, braces pivoted to lower part of frame below said base arms and butting against the frame, transverse rods connecting said braces and to fit into notches in the upper part of said arms to support the frame, legs pivoted to the outer ends of the base arms, and transverse supports on the outer parts of legs to support ends of said arms as described. 5th. In a machine of the character described, consisting of framework of two

connected sides, vertical openings in said sides to receive ball bearing casings which support rubber rollers between said sides shafts through said rollers and sides, provided with case hardened sleeves with outer shoulders to operate with the balls in said casings, the framework having a widened out base, side braces pivoted to the lower part of frame, supporting base arms pivoted to the frame and butting against as trust support, and provided with outer transverse rods to fit into notches in base arms, and supported legs connected to transverse bars, pivoted to the ends of the base arms, as described.

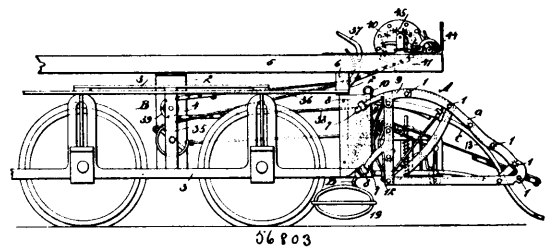
No. 56,802. Wagon Brake. (Frein de wagon.)



Ephraim J. England, Water Valley, Mississippi, U.S.A., 26th July, 1897; 6 years. (Filed 7th July, 1897.)

Claim.—1st. The combination with the sliding tongue provided with the rod 8, and clevis 12, of the brake-rods 20, 21, formed with the integral eye 19, the brake-beam 25, adjustably secured to the diverging outer ends of said rods, and the arm 29, secured to said brake-beam and provided with a notch 30, adapted to engage the cross-bar 31, secured to the rear hounds, substantially as shown and described. 2nd. The combination of the sliding tongue, the clevis 12, secured to the rear end thereof, the brake-rods 20, 21, having an integral eye 19, pivoted to said clevis, the brake-beam secured to the rear ends of said brake-rods 20, 21, the notched arm 29, secured to said brake-beam, and adapted to engage the cross-bar 31, when the brake is applied, and the hand-lever 32, in operative contact with said arm 29, substantially as and for the purpose set forth. 3rd. The combination of the sliding tongue, the rod 8, and clevis 12, mounted thereon, and engaging the eye 19, of the brake-rod 20, 21, the rear ends of which are adjustably secured to the sliding brake-beam, substantially as shown and described.

No. 56,803. Car Fender. (Défense de chars.)

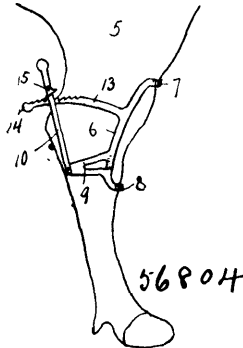


Thomas Roger Hannah Johnson, Washington, Pennsylvania, U.S.A., 26th July, 1897; 6 years. (Filed 8th July, 1897.)

Claim.—1st. A fender, a buffer movable within the fender, means for holding the buffer in a raised or normal position, and a release guard for automatically releasing the buffer from the holding means when the release guard is brought into contact with an object. 2nd. A fender, a buffer movable within the fender, a spring-actuated catch adapted to hold the buffer in a raised or normal position, springs adapted to project the buffer into lowered or operative position when released from the catch, and a release guard for automatically withdrawing the catch from the buffer. 3rd. A fender, a buffer movable within the fender, wheel guards secured to and movable with the buffer, and means for holding said buffer and wheel guards in a raised or normal position. 4th. A fender, a buffer movable within the fender, said buffer being movable with a rearwardly extending arm, a spring catch adapted to engage with a notch in said arm to hold the buffer in a raised or normal position, wheel guards secured to said arm and movable with the buffer, and means connected with the car platform for releasing the buffer from the catch, whereby the buffer and wheel guards may be projected downward into close proximity to the track, substantially as described. 5th. A fender, a buffer movable within the fender, and a mechanism located on the car platform and connected to the buffer, said mech-

anism being adapted to raise the buffer any required distance above the track, substantially as described. 6th. A fender, a buffer movable within the fender, said buffer being provided with a rearwardly extending arm, a spring-actuated catch adapted to engage with a notch in the arm to hold the buffer in a raised or normal position, a release guard for withdrawing said catch from the notch, and means connected to the release guard and to the car platform, whereby the buffer may be projected to its operative position from the car platform.

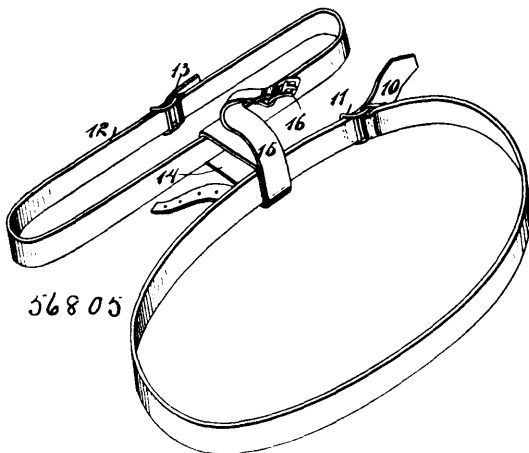
No. 56,804. Anti-kicking Attachment for Cows.
(*Attache pour empêcher les vaches de ruer.*)



Miles Robinson, Peotone, Kansas, U.S.A., 26th July, 1897; 6 years. (Filed 7th July, 1897.)

Claim.—An anti-kicking attachment for cows comprising a clamp having a curved plate, a yoke-shaped backwardly directed hook at both its upper and lower ends, two backwardly directed arms or braces near the lower end of the plate, a lever pivoted thereto, a keeper on said lever, a segmental rack-bar passing through said lever and engaging said curved plate, a head on the outer end of said rack-bar, a dog on said lever and engaging said curved plate, a head on the outer end of said rack-bar, a dog on said lever engaging said rack-bar, and a hook on said keeper, all of said parts being combined, substantially as described.

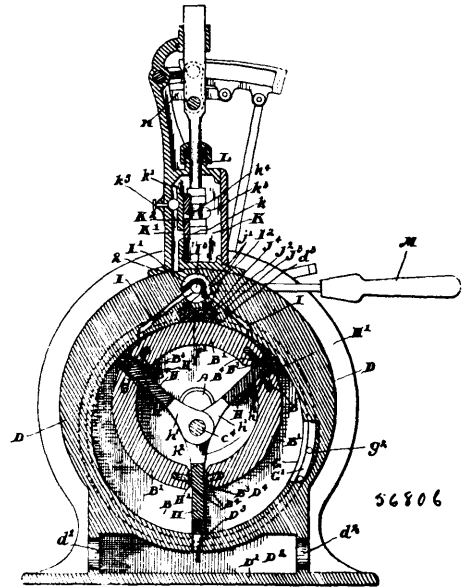
No. 56,805. Safety Belt. (*Courroie de sûreté.*)



Ella Isadore Cooley, Coldwater, Michigan, U.S.A., 26th July, 1897; 6 years. (Filed 8th July, 1896.)

Claim.—A waist-belt, a retaining strap, an elastic material secured to the waist-belt and the retaining strap, and a second strap connecting the waist-belt and retaining-strap by which the movement of the said elastic material may be restricted, as and for the purpose set forth.

No. 56,806. Rotary Engine. (*Machine rotatoire.*)



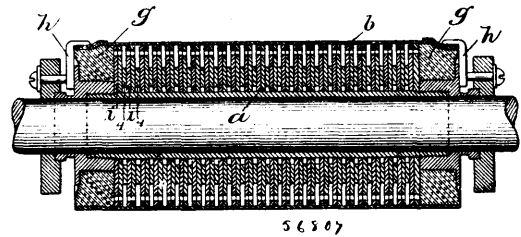
Eber Blake Tree, Woodstock, and Robert Henry Eldon, Toronto, both in Ontario, Canada, 27th July, 1897; 6 years. (Filed 25th June, 1897.)

Claim.—1st. In a rotary engine, in combination, the main driving shaft, the casing, the end disc and ring piston secured to the main shaft concentric to it, the opposite end disc secured to the ring piston, the stationary stud opposite the shaft forming a journal for such opposite disc, the eccentric crank pin connected to the stud, a chamber formed in the casing concentric to the pin, three equidistant wings journalled on the pin and extending through slots in the ring piston into the concentric chamber located within the periphery of the rotating discs and designed to rotate with them, suitable ring packing between the inner rotating discs and the central portion of the casing, and suitable inlet and exhaust ports, as and for the purpose specified. 2nd. In a rotary engine, in combination, the main driving shaft, the casing, the end disc and ring piston secured to the main shaft concentric to it, the opposite end disc secured to the ring piston, the stationary stud opposite the shaft, forming a journal for such opposite disc, the eccentric crank pin connected to the stud, a chamber formed in the casing concentric to the pin, three equidistant wings journalled on the pin and extending through slots in the ring piston into the concentric chamber located within the periphery of the rotating discs and designed to rotate with them, suitable ring packing between the inner rotating discs and the central portion of the casing, a suitable upper inlet port and an exhaust port, comprising tubular openings arranged in alignment across the centre of the bottom of the casing and of less diameter than the thickness of the wings, as and for the purpose specified. 3rd. In a rotary engine, in combination, the main driving shaft, the casing, the end disc secured to the main shaft and the ring piston forming part thereof, the stationary stud held in the opposite side of the casing, the disc journalled thereon having an annular projection, the recess in the ring piston to receive such projection, the crank pin formed on the end of the stationary stud, a concentric chamber formed at the lower portion of the casing by the central portion of the casing, the split ring packing wedge shaped in cross section between the outer edge of the central portion of the casing and the rotating discs, the manilla packing supplementing the inner wedge shaped rings, the compression rings and springs for exerting a constant tension upon such packing, the wings, the L-shaped packing blocks at the outer and side edges of the wings, the manilla packing and L-shaped strips behind such wings, the centre wedge plate and springs holding such combined packing in position, the rollers provided with central slots located in the apertures in the disc through which the wings pass and journalled at the ends in recesses in the discs, the caps for closing such recesses steam tight, the manilla side packing extending through the rollers on each side of the slot, the manilla packing on each side of the roller in the ring piston and wedge blocks for holding such packing in position, and a suitable inlet port and central lower exhaust port, as and for the purpose specified. 4th. In a rotary engine, in combination, the main driving shaft, the casing, the end disc secured to the main shaft and the ring piston forming part thereof, the stationary stud held in the opposite side

of the casing, the disc journaled thereon having an annular projection, the recess in the ring piston to receive such projection, the crank pin formed on the end of the stationary stud, a concentric chamber formed at the lower portion of the casing by the central portion of the casing, the split ring packing wedge shaped in cross section between the outer edge of the central portion of the casing and the rotating discs, the inner packing supplementing the inner wedge shaped rings, the compression rings and springs for exerting a constant tension upon such packing, the wings, the L-shaped packing blocks at the outer and side edges of the wings, the manilla packing and L-shaped strips behind such wings, the centre wedge plate and springs holding such combined packing in position, the rollers provided with central slots located in the apertures in the disc through which the wings pass and journaled at the ends in recesses in the discs, the caps for closing such recesses steam tight, the manilla side packing extending through the rollers on each side of the slot, the manilla packing on each side of the roller in the ring piston, wedge blocks for holding such packing in position, a suitable inlet port and central lower exhaust port, the depression at the top of the concentric chamber in which the ring piston fits, the divided packing block, the wedge separating the divided packing block, the manilla packing, the central spring-pressed plate located to the outside of such wedge, as and for the purpose specified. 5th. In a rotary engine, in combination, the main driving shaft, the casing, the end disc and ring piston secured to the main shaft concentric to it, the opposite end disc secured to the ring piston, the stationary stud opposite the shaft forming a journal for such opposite disc, the eccentric crank pin connected to the stud, a chamber formed in the casing concentric to the pin, three equidistant piston wings journaled on the pin and extending through slots in the ring piston into the concentric chamber, suitable packing for same, and suitable ring packing between the inner rotating discs and the central portion of the casing, the ports arranged on each side of the tangential portion of the ring piston, the central aperture and valve plug in same provided with a substantially U-shaped partition and central aperture, a handle for manipulating such plug, and an exhaust located at the centre of the bottom of the casing, as and for the purpose specified. 6th. In a rotary engine, in combination, the main driving shaft, the casing, the end disc and ring piston secured to the main shaft concentric to it, the opposite end disc secured to the ring piston, the stationary stud opposite the shaft forming a journal for such opposite disc, the eccentric crank pin connected to the stud, a chamber formed in the casing concentric to the pin, three equidistant wings journaled on the pin and extending through slots in the ring piston into the concentric chamber, suitable packing for same and suitable ring packing between the inner rotating discs and the central portion of the casing, the ports arranged on each side of the tangential portion of the ring piston, the central aperture and valve plug in same provided with a substantially U-shaped partition and central aperture, a handle for manipulating such plug, an exhaust located at the centre of the bottom of the casing, and a passageway leading from the space between the rotating disc and the end disc of the casing into the exhaust, as and for the purpose specified. 7th. In a rotary engine, in combination, the main driving shaft, the casing, the end disc and ring piston secured to the main shaft concentric to it, the opposite end disc secured to the ring piston, the stationary stud opposite the shaft forming a journal for such opposite disc, the eccentric crank pin connected to the stud, a chamber formed in the casing concentric to the pin, three equidistant piston wings journaled on the pin and extending through slots in the ring piston into the concentric chamber, suitable packing for same, and suitable ring packing between the inner rotating discs and the central portion of the casing, the ports arranged on each side of the tangential portion of the ring piston, the central aperture and valve plug in same provided with a substantially U-shaped partition and central aperture, a handle for manipulating such plug, an exhaust located at the centre of the bottom of the casing, the steam chest, the steam port, the passageway leading from the steam port to the central plug aperture, the valve port, the valve rod and valve plate, with port and means for manipulating the valve plate so as to provide free admission of steam upon each revolution, as and for the purpose specified. 8th. In a rotary engine, in combination, the main driving shaft, the casing, the end disc and ring piston secured to the main shaft concentric to it, the opposite end disc secured to the ring piston, the stationary stud opposite the shaft forming a journal for such opposite disc, the eccentric crank pin connected to the stud, a chamber formed in the casing concentric to the pin, three equidistant piston wings journaled on the pin and extending through slots in the ring piston into the concentric chamber, suitable packing for same, and suitable ring packing between the inner rotating discs and the central portion of the casing, the ports arranged on each side of the tangential portion of the ring piston, the central aperture and valve plug in same provided with a substantially U-shaped partition and central aperture, a handle for manipulating such plug, an exhaust located at the centre of the bottom of the casing, and the auxiliary steam cock located above the valve port in the steam inlet port, as and for the purpose specified. 9th. The combination with the steam inlet port and valve plug and handle for same, the steam port, the valve rod and valve ports and links and eccentrics, of the bell crank having the lower end designed to extend over the handle and the upper end connected by a bar to the link, as and for the purpose specified.

No. 56,807. Buffing or Polishing Device.

(Machine à polir.)

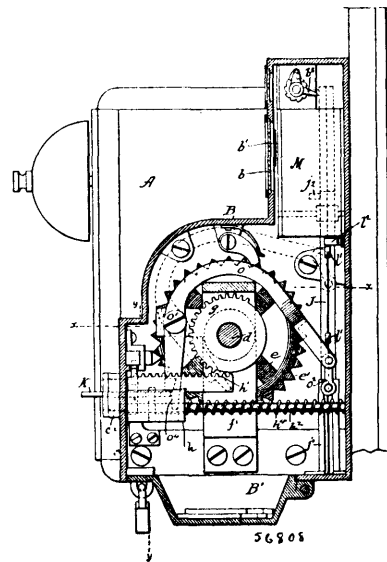


George Henry Peck Flagg, Boston, assignee of Harold Arthur Webster, Haverhill, both of Massachusetts, U.S.A., 27th July, 1897; 6 years. (Filed 3rd May, 1897.)

Claim.—1st. An appliance of the character specified, comprising a rotary hub, a cushion composed of limp annular sections surrounding the hub and separated at their bearing edges, a flexible cover supported by said bearing edges, and means for securing the end portions of the cover to the hub. 2nd. An appliance of the character specified, comprising a rotary hub, and a cushion composed of annular sections surrounding the hub and weakened at their marginal portions. 3rd. An appliance of the character specified, comprising a rotary hub, a cushion composed of a series of limp annular sections mounted to turn loosely thereon and separated at their bearing edges. 4th. In an appliance of the character specified, a cushion-section composed of an annular disc having a limp outer margin, and a spacing piece secured to the disc within the margin.

No. 56,808. Telephone Toll Apparatus.

(Appareil de péage pour téléphones.)



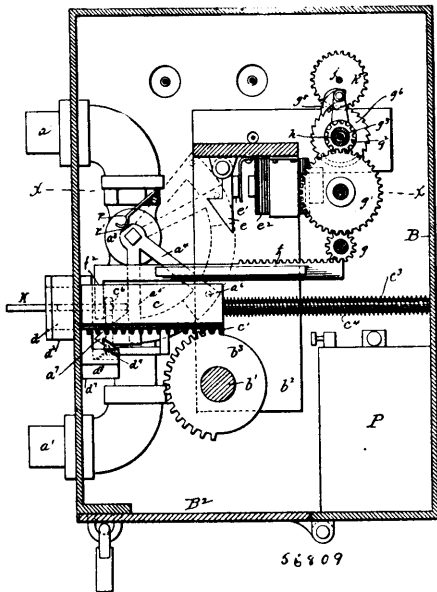
Siegfried Silberberg, assignee of Frank M. Archer, both of New York, State of New York, U.S.A., 27th July, 1897; 6 years. (Filed 18th May, 1897.)

Claim.—1st. The combination with the calling instrument shaft of a telephone, a notched-wheel thereon, a bolt adapted to engage the notches of said wheel, an oscillatory key-holder engaging with said bolt and means whereby a key may oscillate said holder to release the said shaft, as set forth. 2nd. The combination with the call instrument shaft of a telephone, a notched wheel thereon, a bolt adapted to engage the notches of said wheel, an oscillating key-holder engaging with said bolt, a lock for the key-holder, and means for releasing the holder and oscillating the same to release the said shaft, substantially as described. 3rd. In a telephone toll apparatus, a main shaft provided with two clutches, one connecting it with the calling apparatus and operative when the shaft is turned in one direction only, and the other connecting it with a key carriage and operative when the shaft is turned in the opposite direction only, substantially as described. 4th. In a telephone toll apparatus operated by a key, the combination of a key, a carriage with which it engages when inserted, a shaft and connections between the shaft and carriage whereby the latter is moved when the former is rotated, substantially as described. 5th. In a telephone toll apparatus operated by a key, the combination of a key carriage with which the key engages when inserted, a shaft and connections between the

shaft and carriage whereby the latter is moved when the former is rotated, and a clutch for disconnecting the shaft from the carriage, substantially as described. 6th. In a telephone toll apparatus operated by a key, the combination of a key holder, a key carriage, means for locking the carriage and key together, and means for moving the holder to lock the key in or release it from the carriage, substantially as described. 7th. In a telephone toll apparatus operated by a key, the combination of a key-holder and a key carriage adapted to engage with the key, the key-holder adapted to be oscillated to effect an engagement between the carriage and key, substantially as described. 8th. In a telephone toll apparatus operated by the insertion of a key, a main shaft adapted to send in a call when rotated in one direction and to entrap the key when rotated in the opposite direction. 9th. In a telephone toll apparatus operated by a key, a circuit closer, a weight operating the same, a lever for lifting the weight, and means whereby the insertion of the key will enable the customer to lift the weight, substantially as described. 10th. In a telephone toll apparatus operated by a key, a circuit closer, a weight operating the same, a lever for lifting the weight, a clock train regulating the return movement of the weight, and means whereby the insertion of a key will enable the customer to lift the weight, substantially as described.

No. 56,809. Toll Apparatus for Meters.

(Appareil de péage pour téléphones.)



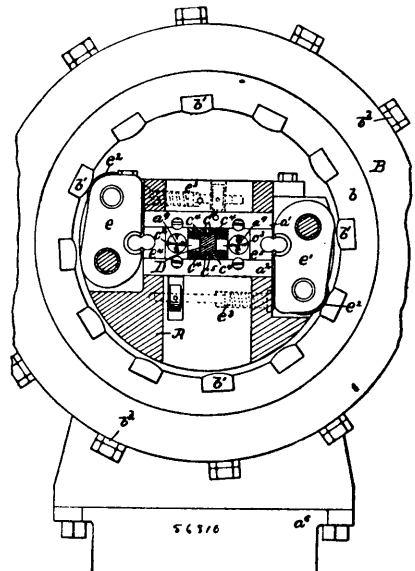
Siegfried Silberberg, assignee of Frank Morton Archer, both of New York, State of New York, U.S.A., 27th July, 1897; 6 years. (Filed 18th May, 1897.)

Claim.—1st. In a toll apparatus for meters, the combination of a shaft adapted to register the consumption of material flowing, a contact point carried by said shaft, a second contact point whose position may be set with respect to that of the first, and means whereby a key or token may be used to fix the relative position of the two contact points, substantially as described. 2nd. In a toll apparatus for meters, the combination of a shaft adapted to register the consumption of material flowing, a contact point carried by said shaft, a second contact point capable of being set at various positions with respect to that of the first, and means whereby a series of tokens designed with reference to certain values respectively, are adapted, when used, to respectively fix the relative positions of the two contacts, substantially as described. 3rd. In a toll apparatus for meters, the combination of a shaft adapted to register the consumption of material flowing, a contact point carried by said shaft, a second contact point whose position may be set with respect to that of the first, and means whereby a token designed with reference to a certain value is adapted, when used, to fix the relative positions of the two contact points, a valve and an electro-magnetic apparatus in the circuit controlled by said contact points, for controlling said valve, substantially as described. 4th. In a toll apparatus for meters, the combination of a shaft adapted to register the consumption of material flowing, a contact point carried by said shaft, a second contact point capable of being set at various positions with respect to that of the first, means whereby a series of tokens designed with reference to certain values respectively, are adapted, when used, to respectively fix the relative positions of the two contacts, a valve and an electro-magnetic apparatus in a circuit controlled by said contact points, for controlling said valve, substantially as described. 5th. In a toll apparatus for meters, the combination of a valve and valve handle or arm, a latch for retaining the same in its open

position, a registering device, means whereby the movement of the registering device will release the latch and permit the valve to close, a setting mechanism for determining when the registering device shall act, and means whereby a key or token may act simultaneously to open the valve and to set the setting mechanism, for the purpose set forth. 6th. In a toll apparatus for meters, the combination of a valve and valve handle or arm, a latch for retaining the same in its open position, a registering device, means whereby the movement of the registering device will release the latch, a setting mechanism for determining when the registering device shall so act, and means whereby a key or token may act simultaneously to open the valve and set the setting mechanism, and a manually operated shaft through which the key or token is moved to so act upon the valve and setting mechanism, substantially as described. 7th. In a toll apparatus for meters, the combination of a key carriage, a valve handle standing in the path of movement of the key, a setting mechanism for determining when the valve shall be closed, and means whereby a series of keys of varying design may each move the valve handle a full stroke while at the same time moving the setting mechanism a portion of a stroke depending upon the design of the key. 8th. In a toll apparatus for meters, the combination of a registering shaft carrying an electrical contact, a second shaft carrying a corresponding contact, gearing for rotating the second shaft to set its contact in a certain position with respect to the other, and means whereby a key or token may be annually operated to engage with and move said gearing, substantially as described. 9th. In a toll apparatus for meters, the combination of a registering shaft carrying an electrical contact, a second registering shaft carrying a corresponding contact, gearing for rotating the second shaft to set its contact in a certain position with respect to the other, and means whereby a key or token may be manually operated to engage with and move said gearing, an electric circuit of which said contacts are the terminals, a magnet in said circuit and a cut-off valve controlled by said magnet, substantially as described. 10th. In a toll apparatus for meters, the combination of a carriage for a key or token, a rack-bar adapted to engage with said key or token, and means whereby the key or token is moved co-extensively with the carriage, but differentially with respect to the rack-bar in accordance with the characteristics of the key or token.

No. 56,810. Wire Swaging Machine.

(Machine à étouper le fil de fer.)



The Marcus Mason Manufacturing Company, New York, State of New York, assignee of William H. Wiggin, Worcester, Massachusetts, both in the U.S.A., 27th July, 1897; 6 years. (Filed 9th June, 1897.)

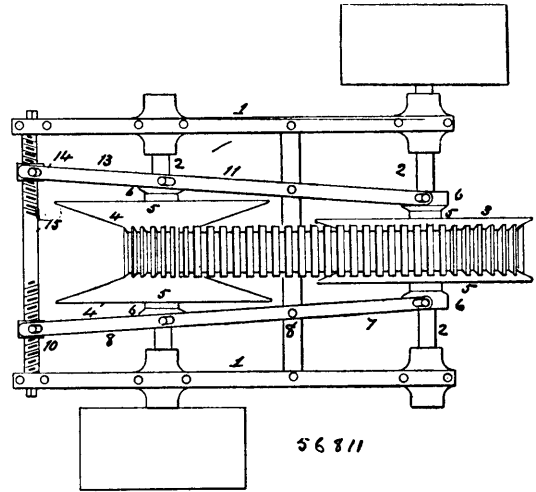
Claim.—1st. In a wire-swaging machine, the combination with pairs of swaging dies, of a support common to and seated and movable between the anvil members of said pairs of dies, and adapted to sustain said anvil members at different distances apart from each other, together with actuating mechanism adapted to impart swaging movement to the reciprocating members of said pairs of dies, substantially as and for the purpose specified. 2nd. In a wire-swaging machine, the combination with pairs of swaging dies, of a support common to and slidably mounted between said pairs of dies, and having inclined faces opposed to correspondingly inclined faces provided on anvil blocks interposed between said

support and the anvil members of said pairs of dies, together with actuating mechanism adapted to impart swaging movement to the reciprocating members of said pairs of dies, substantially as and for the purpose specified. 3rd. In a wire-swaging machine, the combination with a fixed die-supporting frame, of pairs of swaging dies seated therein, a support common to and seated and movable between opposed faces of the anvil members of said pairs of dies and adapted to sustain said anvil members at different distances apart in said frame, and actuating mechanism carried by said frame adapted to impart swaging movement to the reciprocating members of said pairs of dies, together with a revoluble, recessed head adapted to have said die frame seated within it, and carrying operative mechanism adapted, by the rotation of said head, to actuate the swaging mechanism carried by said frame, substantially as and for the purpose specified. 4th. In a wire-swaging machine, the combination with a die-supporting frame, of pairs of swaging dies movably seated therein, anvil blocks seated between the opposed faces of the anvil members of said pairs of dies, and actuating mechanism adapted to impart swaging movement to the reciprocating members of said pairs of dies, whereby the pairs of dies will support each other in the direction of the swaging movement of said reciprocating members thereof, substantially as and for the purpose specified. 5th. In a wire-swaging machine, the combination with a die-supporting frame, of pairs of swaging dies movably seated therein, anvil blocks seated in said frame between and movable towards and from opposed faces of the anvil members of said pairs of dies, a support in said frame common to, seated and movable between and in actuating engagement with said anvil blocks and adapted to sustain said blocks at different distances apart from each other, together with follower blocks movably seated in said frame adjacent to the reciprocating members of said pairs of dies, and actuating mechanism adapted to reciprocate said follower blocks to impart swaging movement to said reciprocating members of said pairs of dies, substantially as and for the purpose specified. 6th. In a wire-swaging machine, the combination with a die-supporting frame, of two pairs of swaging dies seated therein in the same plane, with the outward faces of their anvil members opposed to each other, a support common to and seated and movable between said opposed faces of said anvil members and adapted to sustain the same at different distances apart from each other, together with actuating mechanism adapted to impart swaging movement to the reciprocating members of said pairs of dies, whereby the anvil members of both said pairs of dies may be moved towards and from each other at predetermined times, substantially as and for the purpose specified. 7th. In a wire-swaging machine, the combination with a die-supporting frame and two pairs of swaging dies seated therein in the same plane with the outward faces of the anvil members thereof, parallel and opposed to each other, of a wedge block seated in said frame and common to and slidably mounted between and with its inclined faces opposed to said outward faces of said anvil members, and anvil blocks, having inclined faces fitting to said inclined faces of the wedge blocks, movably seated in the frame between said faces of the wedge blocks and said anvil members and in actuating engagement with said wedge block, substantially as and for the purpose specified. 8th. In a wire-swaging machine, the combination with a die supporting frame and two pairs of swaging dies seated therein, of a wedge block seated in said frame in actuating engagement with and slidably mounted between opposed corresponding faces provided on anvil blocks interposed between said wedge blocks, and the anvil members of said pairs of dies, together with a lever in actuating engagement with said wedge block and engaged with and actuated by a rock shaft, and an adjustably controlled lever carried by and operating said rock shaft, substantially as and for the purpose specified. 9th. In a wire-swaging machine, the combination with a die-supporting frame and two pairs of swaging dies seated therein, of a wedge block seated in said frame, in actuating engagement with and slidably mounted between opposed corresponding faces provided on anvil blocks interposed between said wedge block and the anvil members of said pairs of dies, together with a rack on the said wedge block, a rock shaft carrying a pinion, a lever pivoted in said frame and provided on its respective ends with sectors to respectively engage the said rack and pinion, and a controlling lever on said rock shaft, substantially as and for the purpose specified. 10th. In a wire-swaging machine, a die-supporting frame, comprising a base adapted to be removably fixed on the machine frame, and a block on and projecting from an edge of said base, recessed to accommodate the dies and their actuating mechanism, and adapted, when in place on the machine, to reach into and sustain its dies and their said mechanism within a recessed and revoluble head carrying the devices for operating said die actuating mechanism, substantially as and for the purpose specified. 11th. In a wire-swaging machine, the combination of a stationary die-supporting frame, swaging dies seated therein, levers respectively pivoted in said frame upon diametrically opposite sides thereof and operatively connected with said dies, together with a revoluble head enclosing said die frame and levers, a series of cams in said head to act upon said levers, and springs seated in said frame and engaging said levers to throw them into the path of said cams, substantially as and for the purpose specified. 12th. In a wire-swaging machine, the combination with a recessed revoluble head and cams carried thereby, of a die-supporting frame, composed of a base adapted to be removably fixed on the machine frame, and a recessed segmental block adapted, when

said frame is in position on the machine, to project within said head, and wire-swaging mechanism seated in said block and adapted to be actuated by said cams in said head, substantially as and for the purpose specified.

No. 56,811. Speed Varying Mechanism.

(*Mécanisme à varier la vitesse.*)

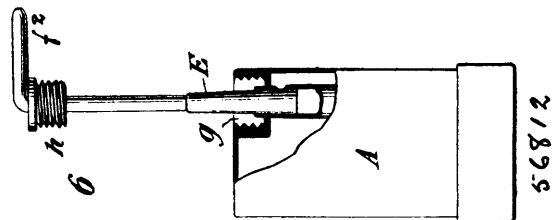


The Reeves Pulley Co., assignee of Milton O. Reeves, all of Columbus, Indiana, U.S.A., 27th July, 1897; 6 years. (Filed 11th June, 1897.)

Claim.—1st. The combination in a speed varying mechanism of a shaft, a pair of driving elements movably mounted thereon, having oblate spheroid faces, a second shaft, a pair of driving elements of like construction thereon, a belt connecting the pairs of driving elements, and means for simultaneously moving the members of one pair of driving elements towards each other and the members of the other pair away from each other, substantially as and for the purpose set forth. 2nd. The combination in a speed varying mechanism, of a shaft, a pair of driving elements mounted thereon, having oblate spheroid faces, a second shaft, a pair of driving elements of light construction thereon, a belt connecting the pairs of driving elements and having driving edges adapted to contact with the driving faces, levers connecting the corresponding members of each pair pivoted between the shafts and having extensions in the rear of one shaft, a screw shaft having a right hand threaded part and a left hand threaded part, each carrying a nut adapted to engage with the extensions of one set of levers, substantially as and for the purpose set forth.

No. 56,812. Oilers, Oil Cans, etc.

(*Graisseur, bidon à huile, etc.*)



Francis Raymond, assignee of William Cotter Wilson, both of Brooklyn, New York, U.S.A., 27th July, 1897; 6 years. (Filed 14th June, 1897.)

Claim.—1st. The combination with a reservoir, of a sleeve extended vertically through the reservoir, open at its top, and provided with an opening for communication with the interior of the reservoir, a tapering air tube placed within the sleeve, open at top and at bottom open to the outside, a longitudinally movable rod placed in said tube to control the passage of air therethrough, and a longitudinally movable tapering nozzle open at both ends, arranged to be moved within the sleeve and along the air tube, and provided with an opening which, when the nozzle is extended, co-ordinates with that of the sleeve to provide communication with the interior of the reservoir, substantially as and for the purpose herein set forth. 2nd. The combination with a reservoir, of a sleeve extended vertically through the reservoir, open at its top, and provided with an opening for communication with the interior of the reservoir, a tapering air tube placed within the sleeve, open at top and at bottom to the outside, a longitudinally movable rod placed in said tube to control the passage of air therethrough, a longitudinally movable tapering

nozzle open at both ends arranged to be moved within the sleeve and along the air tube and provided with an opening which, when the nozzle is extended, co-ordinates with that of the sleeve to provide communication with the interior of the reservoir, and an annulus arranged coincident with the sleeve to surround the base of the nozzle when extended and provide a drip cup to the outer surface of the latter, substantially as and for the purpose herein set forth. 3rd. The combination with a reservoir, of a sleeve extended vertically through the reservoir, open at its top and provided with an opening for communication with the interior of the reservoir, a tapering air tube placed within the sleeve, open at top, and at the bottom open to the outside, a longitudinally movable rod placed in said tube to control the passage of air therethrough, a longitudinally movable tapering nozzle open at both ends, arranged to be moved within the sleeve and along the air tube, and provided with an opening which, when the nozzle is extended, co-ordinates with that of the sleeve to provide communication with the interior of the reservoir, an annular nut at the top of the sleeve and a screw cap for closing the sleeve and enclosing its contents, substantially as and for the purpose herein set forth. 4th. The combination with a reservoir, of a sleeve extended vertically through the reservoir, open at its top and provided with an opening for communication with the interior of the reservoir, a tapering air tube placed within the sleeve, open at top, and at the bottom open to the outside, a longitudinally movable rod placed in said tube to control the passage of air therethrough, a longitudinally movable tapering nozzle open at both ends, arranged to be moved within the sleeve and along the air tube, and provided with an opening which, when the nozzle is extended, co-ordinates with that of the sleeve to provide communication with the interior of the reservoir, an annular nut arranged coincident with the sleeve at the upper end thereof and constructed to provide a drip-cup to the nozzle when the latter is extended, and to receive a screw-cap for closing the sleeve when the nozzle is encased therein, substantially as and for the purpose herein set forth. 5th. The combination with a reservoir of a sleeve extended vertically through the reservoir, open at its top and provided with an opening for communication with the interior of the reservoir, a tapering air tube placed within the sleeve, open at top, and at the bottom open to the outside, a longitudinally movable rod placed in said tube to control the passage of air therethrough, a longitudinally movable tapering nozzle open at both ends, arranged to be moved within the sleeve and along the air tube, and provided with an opening which, when the nozzle is extended, co-ordinates with that of the sleeve to provide communication with the interior of the reservoir, an annular nut, a nut carried by said nozzle and a nut in the top of the reservoir to receive the nut on the nozzle when the latter is depressed, substantially as and for the purpose herein set forth. 6th. The combination with a body A, having a screw-threaded mouth, and a tapering tubular stem open externally at its lower end, of a detachable and reversible nozzle having the nuts *b* and *c*, and proportioned to fit over and upon said stem to close the body at the mouth thereof, and also at the lower portion of said stem, substantially as and for the purpose herein set forth. 7th. The combination with a body A, having a screw-threaded mouth, a detachable and reversible nozzle having nuts *b* and *c*, and a tubular stem open externally at its lower end, of a longitudinally movable stem for regulating the admission of air through the tube and for closing the same when the nozzle is inverted and inclosed in the body, substantially as and for the purpose herein set forth. 8th. The combination with a body A, having a screw-threaded mouth, a tapering tube within the body but open externally at its lower end, a stem placed in said tube to control the capacity of the passage therethrough, and a detachable and reversible nozzle having nuts *b* and *c*, of a screw-threaded cap constructed to be screwed upon the nut *b*, when the nut *c* is screwed into the mouth of the body with the nozzle reversed and surrounding the tube, substantially as and for the purpose herein set forth. 9th. The combination with a body A, of a nozzle attached to the mouth thereof and having the opening *c*¹, at its end and a lateral tubular beak *d*, adjacent thereto, a tapering tube placed within the body but externally open at its lower end, and a longitudinally movable stem for controlling the capacity of the passage through the tube, all substantially as and for the purpose herein set forth. 10th. The combination with a body having a screw-threaded mouth, a detachable and reversible nozzle having nuts *b* and *c*, a laterally projected beak *d*, and opening *c*¹ at its end, of a tapering tube placed within the body but externally open at its inner end, and a longitudinally movable stem placed in said tube to control the capacity of the passage therethrough, substantially as and for the purpose herein set forth.

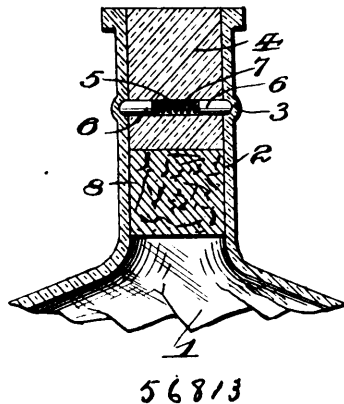
No. 56,813. Non-refillable Bottle.

(Appareil pour empêcher le remplissage des bouteilles.)

Charles Henry Hahn and Jacob Hahn, both of New Haven, Connecticut, U.S.A., 27th July, 1897; 6 years. (Filed 19th June, 1897.)

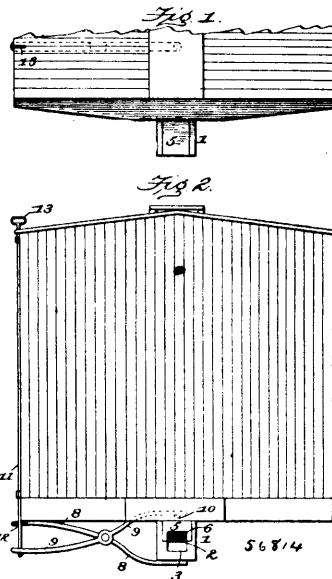
Claim.—1st. A seal or stopper closing the neck of a bottle, comprising a cork having spring-projected arms or lugs which engage a groove or recess in the neck of the bottle, substantially as shown and described. 2nd. In combination with a bottle having an internal groove or recess in its neck, of a stopper having lugs which are projected beyond the sides thereof to engage the recesses or groove in the neck of the bottle, substantially as shown and described. 3rd.

The combination with a bottle having an internal groove or recesses in its neck, of a solid stopper having a transverse opening, lugs or



arms located in said opening, and a spring for projecting the lugs or arms, substantially as shown and for the purpose set forth. 4th. The combination with a bottle having a neck with an internal groove or opposite recesses, of a cork stopper placed in the neck below the groove or recesses, together with a solid stopper having a transverse recess with spring-projected arms located therein, substantially as shown and for the purpose set forth. 5th. The combination with a bottle having a neck with an internal groove or opposite recesses, of a cork located in the lower end of the neck below the groove or recesses, together with a solid stopper having a transverse recess, lugs located therein and connected by an interposed spring, the projecting ends of the lugs being bevelled or undercut, substantially as shown and for the purpose set forth.

No. 56,814. Car Coupler. (Attelage de chars.)

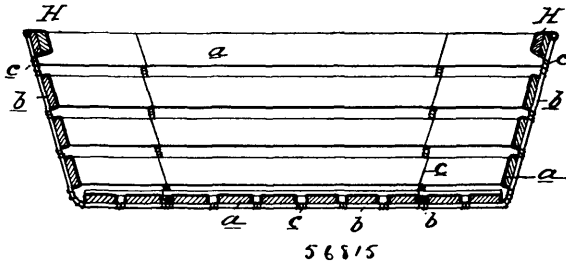


Robert H. Williams, Powellton, Virginia, U.S.A., Leigh H. Raney, Frank Buford and Edward P. Buford, all of Lawrenceville, Virginia, U.S.A., 27th July, 1897; 6 years. (Filed 19th June, 1897.)

Claim.—1st. In a car coupler, the combination with a draw-head, a locking lever fulcrumed therein and a link engaged by a shoulder or projection on said lever, of a pair of release levers pivoted together at points intermediate of their outer ends, one of said levers secured at its inner end to the underside of said draw-head and the other engaging the rear end of said locking lever, the said release levers projecting outwardly to the sides of the car. 2nd. In a car

coupler, the combination with a draw-head, a locking lever fulcrumed therein and a link engaged by a shoulder or projection on said lever, of a pair of release levers pivoted together at points intermediate of their outer ends, one of said levers secured at its inner end to the underside of said draw-head and the other formed with a tooth or projection thereon engaging the rear ends of said locking lever, the said release levers extending outwardly to the sides of the car, substantially as and for the purpose described. 3rd. In a car coupler, the combination with a draw-head, a locking lever fulcrumed therein and a link engaged by a shoulder or projection on said lever, of a pair of release levers pivoted together at points intermediate of their outer ends, one of said levers secured at its inner end to the underside of said draw-head and the other engaging the rear end of said locking lever, and a rod or wire secured to the outer end of one of said levers and extending upwardly to the top of the car, substantially as and for the purpose described.

No. 56,815. Basket. (Panier.)

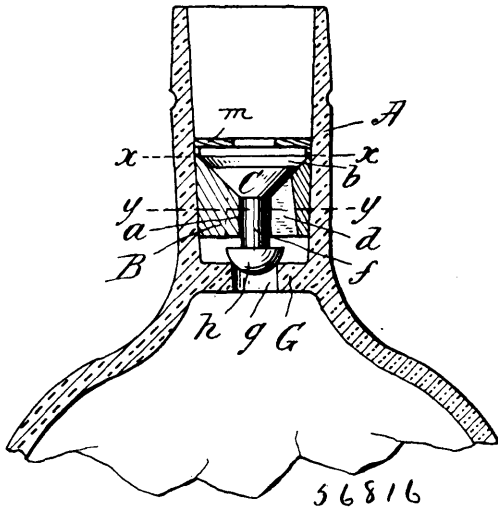


Edward L. Cadwell and Marion S. Cadwell, both of Detroit, Michigan, U.S.A., 27th July, 1897; 6 years. (Filed 21st June, 1897.)

Claim.—A slatted basket consisting of a continuous strip of slatted fabric constituting the bottom and end sections, and having longitudinal stay-wires extending from the outer slats across the outer face only of the fabric and binding wires uniting the slats to the stay-wires, slatted sides, and inner and outer corner pieces secured to the fabric, substantially as described.

No. 56,816. Non-refillable Bottle.

(Appareil pour empêcher le remplissage des bouteilles.)



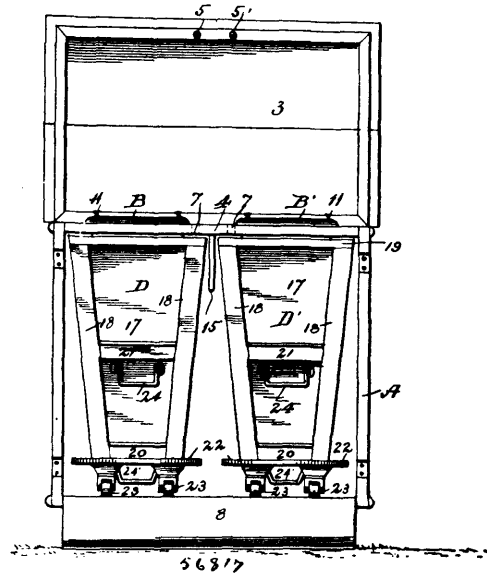
Francis Lucien Cook and Sylvester A. Ryan, both of Springfield, Massachusetts, U.S.A., 27th July, 1897; 6 years. (Filed 23rd June, 1897.)

Claim.—1st. In a non-refillable bottle, the combination with the neck proper having centrally apertured partition G, and thereabove, and separated therefrom, the partition plug B having the central perforation with the upwardly flaring seat b, and also having the passages d leading from the seat down through the plug, of the conical valve C, fitted in said seat, and, when seated, closing the upper ends of said passages d and having the stem playing through said perforation and depending below the plug and the valve h normally adapted to seat itself in the central aperture of said partition G, and means to limit the upward opening movement of the valve C by abutment, substantially as described. 2nd. The combination with

the neck of a bottle having the plug partition B with central perforation a, upwardly flaring seat b, and the vertically leading passages d, of the conical valve, having valve stem f guided in said central perforation, a stop for limiting the axial movement of the valve, and the guard m, over the valve seat, substantially as described.

No. 56,817. Garbage Receptacle.

(Receptacle pour tripailles.)



Frederick Vincent Winters and John A. York, both of New York, State of New York, U.S.A., 27th July, 1897; 6 years. (Filed 23rd June, 1897.)

Claim.—1st. In a garbage receptacle, an outer casing, comprising a rectangular box open on one side, a door to close the open side, a top board on the casing constituting the cover therefor, provided with an opening therein, a chute box detachably arranged in the said opening, a tilting bottom in the chute box, and a lid to cover the top board of the casing and the chute box. 2nd. In a garbage receptacle, an outer casing comprising a rectangular box open on one side, a door to close the open side, a top board covering the casing provided with an opening therein, a chute box detachably arranged in the said opening, a tilting bottom in the chute box, a lid to cover the casing and chute box, and a track board hinged to the bottom of the casing and adapted to turn back into the casing and away from the doors when closed. 3rd. A garbage receptacle, comprising an outer receptacle consisting of a rectangular box, open on one side, doors to close the open side, a top board covering the casing provided with openings therein, chute boxes in the openings, tilting bottoms in the chute boxes, a lid to cover the top of the casing and chute boxes, and a track board hinged to the bottom of the casing, and garbage receptacles in the casing. 4th. In a garbage receptacle, the casing A having a top provided with pin holes adjacent to its front edge, doors provided with staples or eyes to register with the said pin holes, and a lid having pins on its under front edge to pass through the eyes in the doors and engage in the pin holes in the casing. 5th. The garbage receptacle herein described, comprising a rectangular body tapering from top to bottom, angle iron embracing the corners of the body, top and bottom cross pieces connecting the angle irons, intermediate cross pieces, a circular flange at the bottom of the body, balls on opposite sides of the body, and a handle on the bottom of the receptacle as described.

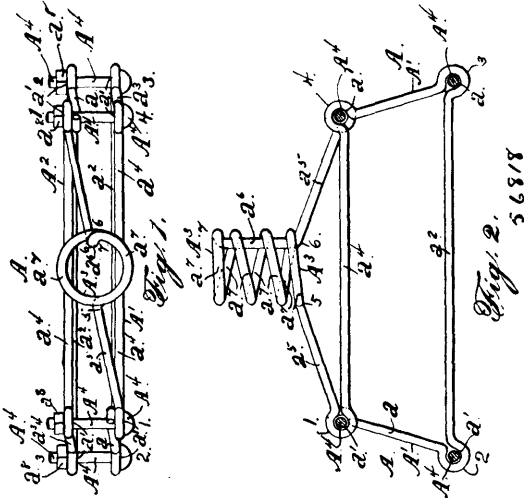
No. 56,818. Continuous Wire Broom Head.

(Tête de balai à fil de fer continu.)

Simon Longenecker Brandt, Marietta, and Galen John Peoples Raub, Quarryville, both in Pennsylvania, U.S.A., 27th July, 1897; 6 years. (Filed 26th June, 1897.)

Claim.—1st. A broom head made from a continuous piece of wire comprising two side members having downwardly and outwardly sloping end bars, lower side bars, upwardly and inwardly sloping end bars, and upper side bars, with bolt-receiving eyes at the angles of said members, upwardly sloping diagonal arms merging from said upper side bars and extending toward the vertical centre line of said head, a vertically disposed ridge continuing from one of said diagonal arms, a handle socket coil having spiral folds about said ridge with the upper fold merging from the upper end thereof, and the lower fold merging into the other diagonal arm, and means provided, such as bolts passing through said eyes with nuts on their threaded ends, to press and hold said members together, all substantially as

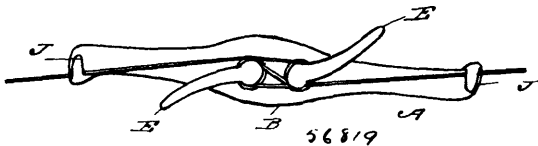
described and for the purpose hereinbefore set forth. 2nd. The broom head A, made from a continuous wire, comprising the mem-



bers A¹, A², having the downwardly and outwardly sloping end bars a, the lower side bars a², the upwardly and inwardly sloping end bars a³, and the upper side bars a⁴, with the eyes a¹, at the angles where said bars are folded over, the upwardly sloping diagonal arms a⁵, merged from the bars a⁴, and extended to the points 5 and 6, the vertically disposed ridge a⁶, continued from one of said arms a⁵, and extended upwardly to the point 7, the handle socket coil A³, having the spiral folds a⁷, about said ridge with its upper fold merged from the upper end thereof and its lower fold merged into the other arm a⁵, and the bolts A⁴, passed through said eyes, with the nuts a⁸, thereon, to press and hold said members together, all substantially as described and for the purpose hereinbefore set forth.

No. 56,819. Fence Tightener.

(Tendeur de fil de fer.)

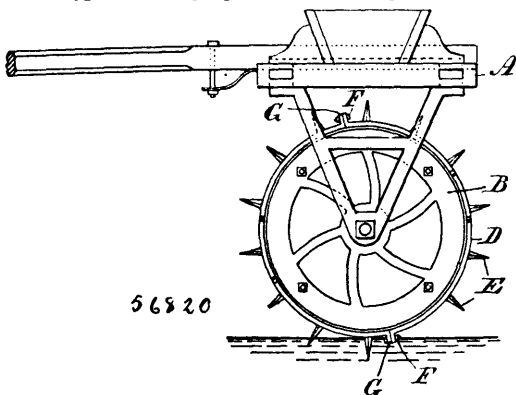


Harrison V. Conway and Norman Finch, both of Boone, Iowa, U.S.A., 27th July, 1897; 6 years. (Filed 29th June, 1897.)

Claim.—1st. A tightener made from a single casting and composed of the main or body portion, hooks one at each end thereof reversely arranged, and the parallel uprights rising from the centre of the bar and having each an enlargement or handle or grasping portion for manipulating the device. 2nd. A fence tightener made from a single casting, composed of the main portion having a hook at each end reversely arranged, two parallel uprights rising from the centre and having at their ends the oppositely arranged curved handles for manipulating the device.

No. 56,820. Pulverizer Attachment to Land Rollers.

(Appareil à broyer pour rouleaux d'agriculture.)

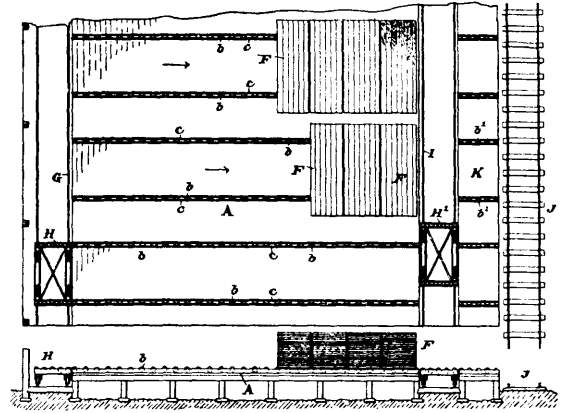


Henry Harcastle, Tara, and Charles Arkell, Chesley, both in Ontario, Canada, 27th July, 1897; 6 years. (Filed 30th June, 1897.)

Claim.—1st. A flexible band D, composed of curvilinear sections hinged together at the ends and having teeth or spikes E, and provided with a screw or key F, joining the ends, as and for the purpose set forth. 2nd. A land roller having a series of attachable and removable bands encircling the roller, said bands having teeth or spikes E, and provided with keys or screws F, to removably bind the band to the roller, as set forth.

No. 56,821. Lumber Storage Plant.

(Materiel pour l'emmagasinage du bois.)



Victor Lee Emerson and Charles Hasseltine Basshor, both of Baltimore, Maryland, U.S.A., 27th July, 1897; 6 years. (Filed 2nd July, 1897.)

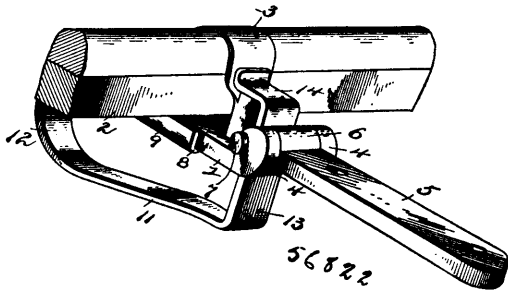
Claim.—1st. The herein-described system of storing lumber in sheds or yards consisting of piling the lumber on bars which rest on freely-revoluble rollers mounted in bearing located over the floor area of the shed or yard, said lumber piles being arranged in compact or close ranks without intervening wagon or car avenues, and said piles being movable bodily. 2nd. The herein-described system of storing lumber in sheds or yards, consisting in piling the lumber on bars which rest on freely-revoluble rollers, practically covering the entire floor area of the shed or yard, said piles being close together and arranged in compact ranks extending from the receiving end to the delivery end of the shed or yard and said piles being movable bodily without handling the boards comprising the pile. 3rd. A lumber storage shed having in combination a floor or horizontal support provided with freely-revoluble rollers projecting above its top surface, said rollers being arranged in a plural series of parallel lines, and movable bars which rest upon said rollers and adapted to support and carry lumber piled on said bars. 4th. A lumber storage shed, having in combination a floor support, having freely-revoluble rollers projecting above its top surface, said rollers being arranged in a plural series of parallel lines, a crosswise track at the receiving end of said shed, a crosswise track at the delivery end, a transfer car movable on said crosswise tracks, said car having at its top two series of rollers which revolve freely in a vertical plane at right angles with respect to the car wheels, and said two series of rollers spaced apart to register with one series of said parallel line rollers, and movable bars each having on its under side a longitudinal channel to fit on said rollers. 5th. In a lumber storage plant a transfer truck having a frame mounted on wheels to traverse a rail track, bars on top of said frame extending crosswise at right-angles with respect to the track wheel, and rollers mounted on said crosswise bars and revolving freely, said rollers serving for channel bars to support the lumber. 6th. A transfer truck for lumber storage plants, having parallel bars at opposite sides, track wheels mounted between said parallel bars, end parallel bars resting on top of said side bars and crossing them, and freely revoluble rollers mounted between said end cross bars. 7th. In a lumber storage plant the combination of a shed, freely-revoluble rollers fixed on the floor of said shed, lumber-supporting bars resting on said rollers, a crosswise track at each end of the shed, a longitudinal track at one side in the shed extending between and connecting the said crosswise tracks at the ends, and a car to operate on the longitudinal tracks—said car to transfer trucks with piled lumber on them.

No. 56,822. Thill Coupling. (Armon de limonière.)

Sylvanus L. Hill and George H. Herdman, assignees of Charles E. Walker and John E. Brown, all of Jerseyville, Illinois, U.S.A., 27th July, 1897; 6 years. (Filed 5th July, 1897.)

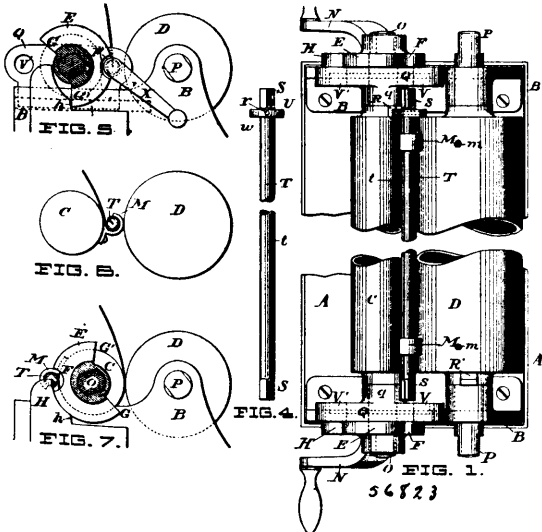
Claim.—1st. In a thill coupling, the combination of an axle, arms extending therefrom, a coupling-iron removably mounted in the arms, and an anti-rattler spring mounted on the axle, extending upward between the same and the coupling-iron and bearing against the latter, said spring having a rearwardly-extending horizontal arm normally bearing against the front of the axle to hold the spring firmly against the coupling-iron, said rearwardly-extending arm be-

ing arranged, when the spring is swung upward, to engage the top of the axle automatically, whereby the spring is held out of engage-



ment with the coupling-iron to enable the same to be readily removed and replaced, substantially as described. 2nd. In a thill coupling, the combination of an axle-clip, arms extending therefrom and provided with open bearings, a coupling-iron arranged in the bearings, and an anti-rattler-spring secured to the axle-clip and consisting of a rearwardly-extending loop and an upwardly-extending portion arranged between the arms, engaging the coupling-iron and having a rearwardly-extending arm bearing against the axle-clip and adapted to be sprung over the top of the axle-clip and maintain the spring in a ret acted position and enable the coupling-iron to be readily removed and replaced, substantially as described. 3rd. A coupling for poles and thills, comprising a substantially U-shaped yoke adapted to extend in advance of an axle and having the terminals of its sides provided with open bearings, an axle-clip extending between the sides of the yoke and provided with a clip-plate arranged on the lower face of the same, the coupling-iron arranged between the sides of the yoke and provided with a pivot fitting in the bearings thereof, and an anti-rattler-spring connected at its rear end to the axle-clip and consisting of a rearwardly-extending loop, and an upwardly-extending substantially rectangular portion located in advance of the loop, arranged between the sides of the yoke and provided at its top with a rearwardly-extending arm bearing against the axle-clip, substantially as and for the purpose described.

No. 56,823. Gutter Former. (Machine à canneler.)

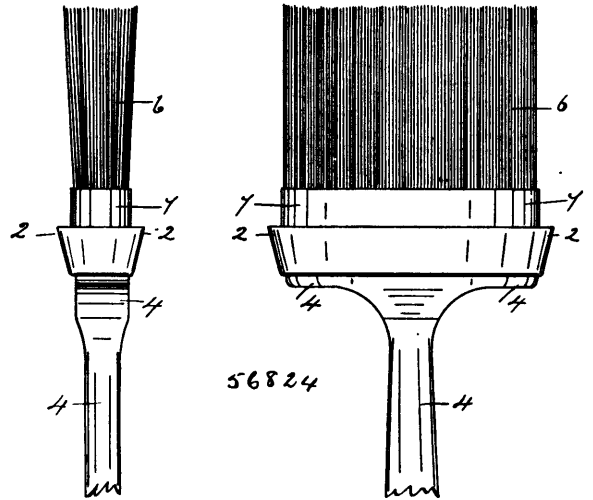


Earl G. Watrous, Lansingburgh, and Dennis J. Whelan, Troy, both in New York, U.S.A., 27th July, 1897; 6 years. (Filed 10th July, 1897.)

Claim.—1st. In a gutter forming machine, two rollers of different diameters which are interchangeable as to their working positions, a set of beader roller bearings which are attachable to either roller as required, a grooved beading roller and means for turning the same in its bearings to form the bead of the gutter, two journal blocks which are reversible as to their working positions containing central bearings for the forming roller and on either side bearings for centering and guiding the means for rotating the beading roller, which guide bearings correspond in distance from the middle bearing to the radii of the two rollers respectively, and means for holding the two rollers in close contact against the sheet metal interposed between them during the formation of the gutter after the completion of the bead, and means for actuating the forming roller. 2nd. The combination in a gutter forming machine, of a roller journalled in fixed bearings, a roller journalled in movable bearings carrying a grooved beading roller adapted to co-operate therewith in manner substan-

tially as shown, a fixed stop and provisions connected with the last named roller adapted to co-operate with said stop to force the rollers towards each other when the latter are rotated. 3rd. The grooved beading roller having provisions at one end for preventing endwise movement, mounted in bearings open at one side attached to the forming roller, in combination with the forming and presser rollers, each having a practically continuous cylindrical surface, the forming roller being adapted to recede from and return to its normal position with reference to the presser roller during the transit of the bead over the presser roller, and means for rotating the forming roller. 4th. The combination with the forming, pressure and beading rollers journalled substantially as shown, of the gapped flanged crank and stationary concentrically curved stop. 5th. The reversible bearing blocks, having guide holes which coincide with the axis of the beading roller, arranged at differential distances from the bearing of the forming roller, in combination with two interchangeable rollers of semi-diameters to correspond with the differential distances aforesaid, as a means for forming gutter of different sizes upon the same set of rolls by transposing their relative positions in the machine.

No. 56,824. Kalsomining Brush. (Brosse.)



Evangeline Gilmore and George Sheldon Bingham, both of Hamilton, Ontario, Canada, 27th July, 1897; 6 years. (Filed 6th July, 1897.)

Claim.—1st. A device for brushes of the character described consisting of an annular reservoir around the root part of the brush, the upper or outer part gradually flared out to form sufficient entrance and the lower part in close proximity with the handle thereof, as described. 2nd. In a device of the character described consisting of an annular reservoir having open top around the root part of a brush an inner socket, forming a part of said reservoir and projecting above for brush handle and upper brush fastening the lower part of said reservoir in close proximity with said handle, causing a gradual slope from upper part of reservoir to the lower part thereof, as described.

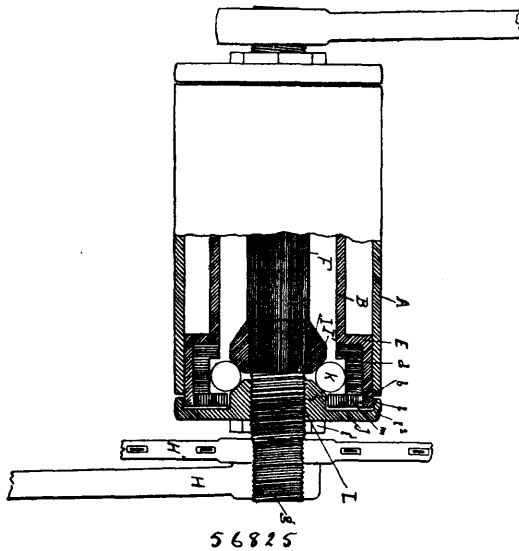
No. 56,825. Anti-Friction Ball-Bearing. (Cousinet de tourillon sans friction.)

(Cousinet de tourillon sans friction.)

Joseph H. Sowerby, Guelph, Ontario, Canada, 27th July, 1897; 6 years. (Filed 9th June, 1897.)

Claim.—1st. In anti-friction bearings, the combination with an axle or shaft, of bearing contacts, and anti-friction balls traversing the said contacts and having their axes arranged parallel with the said shaft or axle, substantially as described. 2nd. In anti-friction bearings, the combination with a shaft or axle, of bearing contacts having contact faces of equal diameter, and anti-friction balls traversing said contacts, whereby the ball is caused to have a positive rolling motion and is prevented by the like circumferences of the contact faces from slipping, substantially as described. 3rd. In anti-friction bearings, the combination with a shaft or axle, of bearing contacts having bearing faces of like circumferences, and anti-friction balls traversing on said contact faces and having their axes arranged parallel with the longitudinal axis of the shaft or axle, substantially as described. 4th. In anti-friction bearings, the combination of a hub, a shaft or axle provided with cones, retaining cups in the hub, adjustable cones mounted on the shaft and forming with the shaft cones and the cups race-ways or runways, and anti-friction balls traversing said raceways and having their axes arranged parallel with the longitudinal axis of the shaft, substantially as described. 5th. In anti-friction bearings, the combination with the hub, of ball containing cups contained therein a shaft or axle provided with fixed cones having bevelled contact faces, adjustable cones mounted on the ends of the shaft, and also formed with

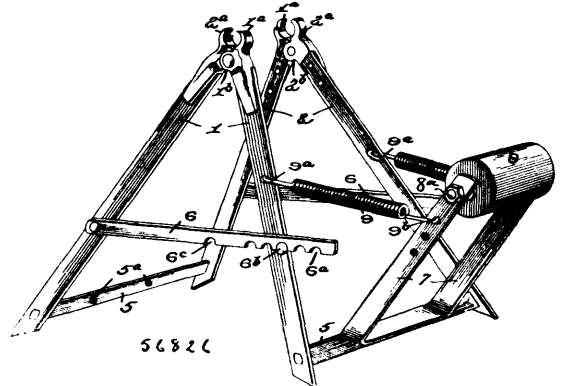
bevelled contact faces the meeting faces of the said cones causing the formation of a substantially V-shaped groove, and anti-friction



balls traversing the raceways formed by said groove and the ball containing cups and having their axes arranged parallel with the shaft, substantially as described. 6th. In anti-friction bearings, the combination with a hub, of ball containing cups therein, a shaft or axle provided with fixed cones having bevelled contact faces, caps closing the ends of the hub and provided with adjustable cones having bevelled contact faces of the same circumference as the contact faces of the fixed cones and forming in conjunction therewith a substantially V-shaped raceway, anti-friction balls contained in said cups and traversing the raceways, said balls having their axes arranged parallel with the shaft, and a washer interposed between the cup and the cap, and having its inner face arranged to form a contact face for the balls when the parts of the bearings are shifted laterally or sidewise, substantially as described. 7th. In anti-friction bearings, the combination of a hub provided with ball containing cups, a shaft or axle provided with cones, adjustable cones mounted on the ends of the shaft and provided with contact faces of the same circumference as the contact faces of the cones first-named and forming therewith and with the ball containing cups raceways and anti-friction balls having said raceways and having their axes arranged parallel with the shaft, substantially as described. 8th. In anti-friction bearings, the combination of a hub provided with ball containing cups, a shaft or axle carrying fixed cones provided with contact faces adjustable cones mounted on the ends of the shaft or axle and provided with contact faces forming in conjunction with the fixed cones and cups a three-point contact, and anti-friction balls in said raceways and having their axes arranged parallel with the shaft, substantially as described. 9th. In anti-friction bearings, the combination of a hub provided with ball containing cups, a shaft or axle carrying a fixed cone having contact faces, dust caps closing the ends of the hub and provided with cones having contact faces and adjustably mounted on said shaft, anti-friction balls traversing the raceways formed by said contacts and ball containing cups, and a washer interposed between the caps and cups and having the inner side thereof arranged in line coincident with the outer or upper edge of the contact face of the adjustable cone, substantially as described. 10th. In anti-friction bearings, the combination of a hub, a box or sleeve contained therein and provided at the ends thereof with enlargements forming chambers or cups, said ends projecting beyond the ends of the hub, a shaft or axle provided with fixed cones having contact faces, ball containing cups inserted in said chambers of the box or sleeve, dust caps provided with inwardly projecting internal flanges fitting on the ends of the sleeve and with inwardly projecting cones having contact faces of the same circumference as the contact faces of the fixed cones, ball retaining washers threaded in the ends of the box or sleeve and interposed between the caps and ball cups, said washers having their inner sides arranged in line or coincident with the outer or upper edges of the contact faces of the adjustable cones, and anti-friction balls traversing the raceways formed by said cones having contact faces and ball retaining cups, also, having their axes arranged parallel with the longitudinal axis of the shaft, substantially as described. 11th. In anti-friction bearings, the combination of an inclosing hub or case, a shaft or axle, two cooperating cones on said shafts formed with bevelled contact faces of corresponding circumference, anti-friction balls, and a cup in the hub or case having a contact portion arranged on the line between the bevelled contact faces of the cones, the said cones and balls hav-

ing such relation that the balls in circuit are adapted to make the same number of revolutions on their axes at each bearing circumference or contact point thereof, substantially as described.

No. 56,826. Bicycle Stand. (Support de bicycles.)



F. E. Myers & Bro., assignee of Philip Andrew Myers, both of Ashland, Ohio, U.S.A., 27th July, 1897; 6 years. (Filed 11th June, 1897.)

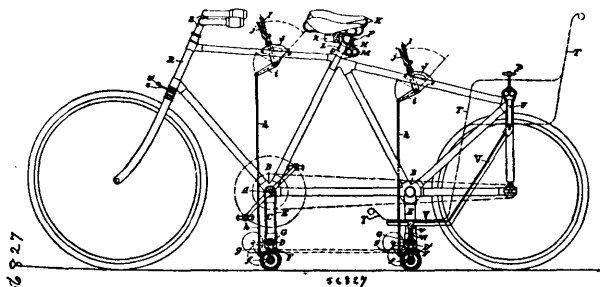
Claim.—1st. A bicycle support, comprising the standards pivotally connected together and having jaws at their upper ends adapted to be closed to clamp the bicycle by the spreading of the lower ends of the standards, substantially as described. 2nd. A bicycle support, comprising the standards pivotally connected together and having jaws at their upper ends adapted to be closed to clamp the bicycle by the spreading of the lower ends of the standards, and folding braces for the lower ends of the standards, substantially as described. 3rd. A bicycle support, comprising the two pairs of standards having jaws at their upper ends, the pivotal connection between the members of each pair, and the rigid connection between the lower ends of the corresponding members of opposite pairs, substantially as described. 4th. A bicycle support, comprising the two pairs of standards having jaws at their opposite ends, the pivotal connection between the corresponding members of each pair, the rigid connection between the corresponding members of opposite pairs, the braces pivotally connected to one member of each pair and having each a series of notches adapted to engage projections on the adjacent member, substantially as described. 5th. In combination with the standards pivotally connected together and having jaws at their upper ends adapted to clamp the axle nuts of a bicycle, the spring-pressed roller supported from the standards and adapted to bear against the tire, substantially as described. 6th. In combination with the standards pivotally connected together and having jaws at their upper ends and cross-bars connecting said standards, the bracket pivotally connected with the cross-bar, the roller journaled in said bracket, and the springs extending between the standards and brackets for holding the roller in contact with the tire, substantially as described. 7th. In combination with the standards pivotally connected together, having jaws at their upper ends adapted to grasp the nuts on a bicycle axle, a truing attachment and a home trainer attachment adapted to be detachably and interchangeably connected with said standards, substantially as described. 8th. In combination with the standards pivotally connected together and having jaws at their upper ends with cross-bars connecting the opposite members of said standards at their lower ends, said cross-bars having holes or recesses, the home training attachment having projections adapted to engage said holes and springs for connecting it with the standards, substantially as described. 9th. In combination, the standards pivotally connected together at their upper ends and having sockets adapted to receive and hold the nuts on the ends of a bicycle axle, the bracket having a pivotal connection with the standards at its lower end, the roller journaled in the free end of said bracket, the springs connecting the free portion of the bracket with the standards and means whereby the tension of the spring may be varied, substantially as described. 10th. In combination, the standards adapted to receive and hold the axle nuts of a bicycle, the cross-bar connecting said standards, and the truing attachment adjustably connected to said cross-bar, substantially as described. 11th. In combination with the standards adapted to receive and hold the nuts on the end of a bicycle axle, and the cross-bar connecting the standards, the truing attachment, comprising the laterally adjustable members connected to the cross-bar, and the vertically adjustable members connected to the laterally adjustable members, substantially as described.

No. 56,827. Bicycle. (Bicycle)

William Frederick Williams, London, England, 28th July, 1897; 6 years. (Filed 12th June, 1897.)

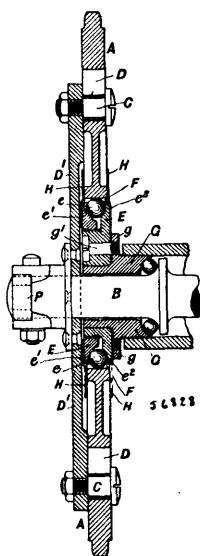
Claim.—1st. A sociable bicycle having a single central main frame and a doubly cranked axle supporting frame formed of a central pillar E extending downwards from the bottom bracket and of

a cross-bar D and pillars C rising from the ends of the said cross-bar, substantially as shown and described. 2nd. A sociable bicycle



having a single central main frame, a transverse saddle supporting bar fixed thereon and a pair of saddle supports mounted to slide on said bar and coupled by a rack bar so as to be moved together, in combination with a self-locking pinion for effecting the lateral adjustment of the saddles and retaining them in position, substantially as specified. 3rd. The combination with the central pillar E and tubular cross-bar D, of the maintainer formed of the rock shaft G passing through and journalled in bearings at the ends of the tubular cross-bar D and terminating in roller carrying crank arms adapted to be depressed so as to bear on the ground, and of means substantially as described of raising and lowering the rollers and of locking them in either position for the purpose specified. 4th. The combination, with a vertical guide socket projecting downwards from the bottom bracket, of a J-shaped frame having friction rollers mounted on the extremities of its horizontal member, its vertical member being fitted to slide up and down in the socket with a stud and slot connection to prevent turning, and being connected by a link with a handing lever so as to be lowered into operative position by a direct thrust substantially as specified. 5th. In a tandem-sociable bicycle, or a sociable bicycle with seats for passengers or receptacles for goods, the combination of two maintainers each formed of a rock shaft with terminal crank arms and friction rollers, the rock shafts being mounted and coupled as described so as to be operated by one handing-lever as specified. 6th. The combination, with a sociable bicycle constructed as described, of seats for passengers or receptacles for goods carried by a laterally adjustable frame the centre part of which is formed or provided with a rack in combination with a self-locking pinion for effecting the lateral adjustment of the seats or receptacles, substantially as described.

No. 56,828. Bicycle Driving Gear.
(*Engrenage de bicycles.*)

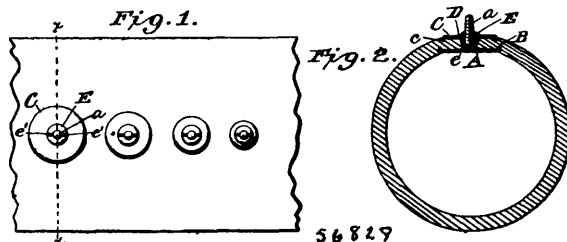


William Frederick Williams, London, England, 28th July, 1897; 6 years. (Filed 12th June, 1897.)

Claim.—1st. The combination, with the herein described elliptic driving gear, of means independent of the chain itself whereby positive motion is imparted to the one chain wheel relatively to its axis and towards and away from the other wheel so as to cause the slack of the chain to be taken up at certain angular positions of the elliptic wheel, substantially as described. 2nd. In an elliptic chain gear the combination, with one of the chain wheels, of means sub-

stantially such as described whereby the wheel is caused to move in its own plane twice in each revolution towards and from the other chain wheel so as to compensate for the varying length of chain required to connect the driving and driven wheels in the different angular positions of the elliptic wheel, as specified. 3rd. In an elliptic chain gear the combination, with the elliptic chain wheel in driving connection with its axle but free to move relatively thereto, of a stationary eccentric by which the wheel is constrained to move in its own plane in such manner as to accommodate the varying length of chain required at different points in the revolution of the gear, substantially as specified. 4th. In an elliptic chain gear the combination, with the elliptic chain wheel in driving connection with its axle by studs and slots permitting of motion of the wheel in its own plane relatively to the axle, of a stationary eccentric by which the wheel is constrained to move in its own plane in such manner as to accommodate the varying length of chain required at different points in the revolution of the gear, substantially as specified. 5th. In an elliptic chain gear the combination, with the elliptic chain wheel in driving connection with its axle but free to move relatively thereto, of a stationary eccentric mounted upon the adjacent gland of the pedal-axle ball bearing, the eccentric engaging in a transverse slot in the wheel so that the latter in revolving about the eccentric is constrained to move in its own plane in such manner as to accommodate the varying length of chain required at different points in the revolution of the gear, substantially as specified. 6th. In an elliptic chain gear the combination, with the elliptic chain wheel in driving connection with its axle but free to move relatively thereto, of a stationary eccentric mounted upon the adjacent gland of the pedal-axle ball-bearing with capability of independent adjustment of the eccentric and gland, the eccentric engaging in a transverse slot in the wheel so that the latter in revolving about the eccentric is constrained to move in its own plane in such manner as to accommodate the varying length of chain required at different points in the revolution of the gear, substantially as specified. 7th. In an elliptic chain gear, the combination, with the elliptic chain wheel in driving connection with its axle by studs and slots permitting the motion of the wheel in its own plane relatively to the axle, of a stationary eccentric on the bottom bracket coupled by a strap and link to the wheel so as to constrain the wheel to move in its own plane in such manner as to accommodate the varying length of the chain required at different points in the revolution of the gear, substantially as specified.

No. 56,829. Puncture Closer for Pneumatic Tires.
(*Fermeture de piqûre de bandage pneumatique.*)

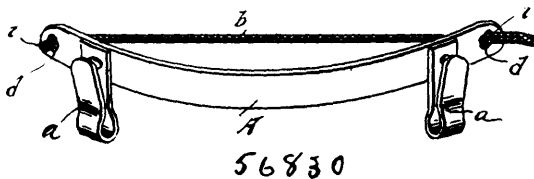


William Robert Bell and Susan Elizabeth Wildman, both of Danbury, Connecticut, U.S.A., 23th July, 1897; 6 years. (Filed 14th June, 1897.)

Claim.—1st. A puncture closer for pneumatic tires, consisting of a thin flanged head provided with a threaded shank to extend through the wall of the tire and through a washer provided with a flange, the aperture in said washer flared outwardly to receive a conical nut, provided with means to receive a tool for turning it, fitted thereto and to said shank to draw said head and said washer into binding contact with the surfaces of the walls of a tire, substantially as shown and described. 2nd. A puncture closer for pneumatic tires, consisting of a head provided with a flange to rest against the interior surface of the tire and having a threaded shank to project through the puncture of said tire, a flanged washer to rest on the outer surface of the tire, the aperture in said washer flared outwardly to receive a conical nut, provided with means to receive a tool for turning it, fitted to said shank and to said aperture to draw said head and said washer into binding contact with the wall of said tire, said nut adapted to force said tire away from said shank and compress it within the area of the flanges on said head and washer, substantially as shown and described. 3rd. A device for closing punctures and slits in pneumatic tires, consisting of a thin plate having a continuous flange projecting from its face at the margin thereof and having a threaded shank attached to said face to project through said puncture or slit, a washer to rest on said shank having an outwardly flared aperture and provided with a continuous flange on the margin of its face, a conical nut, provided with means to receive a tool for turning it, fitted to said shank and to said flared aperture with its tapering end adapted to force said tire out of contact with said shank when screwed thereon, substantially as shown and described. 4th. A device for closing punctures and ruptures in pneumatic tires, consisting of a flanged head provided with a threaded shank tapering from its point of attachment

to said head, said head adapted to rest against the interior surface of the tire with the shank projecting through the puncture or the rupture therein, a flanged washer, to rest on said shank, having the aperture therethrough flared outwardly and a conical nut having means to receive a tool for turning it and provided with a flared aperture, fitted to said shank and to said flared aperture in said washer to force said tire out of contact with said shank and draw said head and said washer into binding contact with the surface of the tire, substantially as shown and described. 5th. A device for closing punctures and breaks in pneumatic tires, consisting of a thin plate having a continuous flange on the margin of its face, a threaded shank rigidly attached to said face concentrically therewith, a thin washer provided with a continuous flange on the margin of its inner face and provided with an aperture concentrically therein to receive said shank, said aperture flared from its inner to its outer surface, a conical nut threaded to screw on said shank and tapered to rest in the flared aperture in said washer, said nut provided with nicks to receive a wrench to turn said nut and draw said washer and said plate in rigid contact with the surfaces of the walls of a pneumatic tire, when inclosed therebetween, substantially as shown and described. 6th. In a device for closing ruptures and slits in pneumatic tires, the combination with an along plate provided with a series of threaded shanks rigidly attached to said plate at a distance from each other thereon, said plate provided with a continuous flange on the margin of its face and with semi-circular flanges across its face connecting with the flanges on its margins, of a plate provided with apertures therethrough corresponding in position with the position of said shanks on said plate, said apertures flared from the inner to the outer surface of said plate, and said plate having a continuous flange on the margin of its face and semi-circular flanges transversely thereon connecting therewith, conical nuts provided with nicks to receive a wrench and apertured and threaded to fit on said shanks and in the flared apertures in said washers, substantially as shown and described.

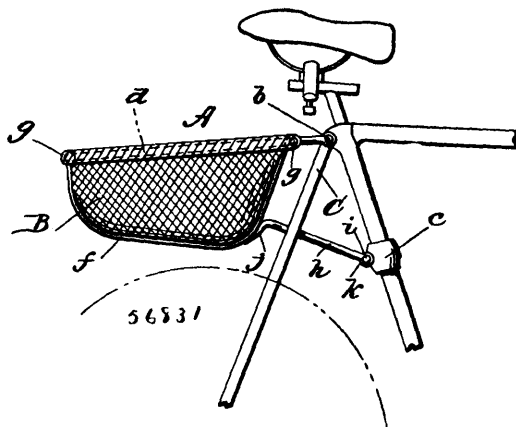
No. 56,830. Bicycle Trouser Protector.
(*Protecteur de pantalons pour bicycles.*)



James Edward Newton, Fall River, Massachusetts, U.S.A., 28th July, 1897; 6 years. (Filed 14th June, 1897.)

Claim.—1st. A new article of manufacture, a trouser-leg protector for bicyclists, consisting of a springy strip of steel having clips attached thereto to receive and hold the lower edge of the trouser-leg, an elastic or resilient member attached to said strip to hold it close to the leg on one side only, substantially as described. 2nd. In a bicycle trouser-leg protector, the combination of a strip of resilient metal forming an arc of a circle, with two or more devices attached thereto to hold the lower edge of one side of the trouser-leg, an elastic member attached to said strip to pass on the other side of the ankle, to hold the strip close thereto, substantially as described.

No. 56,831. Luggage Carrier for Bicycles.
(*Porte-bagages pour bicycles.*)

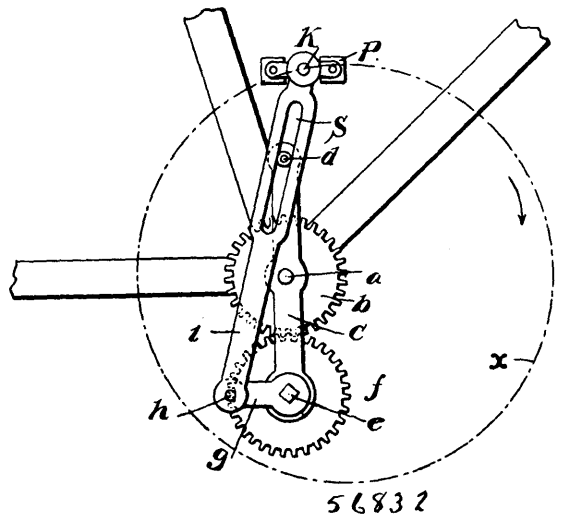


Isaac N. Lincoln, Providence, Rhode Island, U.S.A., 28th July, 1897; 6 years. (Filed 4th June, 1897.)

Claim.—1st. In a luggage carrier for bicycles, the combination consisting of the top rod *d d*, having eyes *e, e*, formed on its ends,

adapted to be secured to the outer sides of the forks *c* by the bolt *b*, as shown, with a tie-rod *d¹*, and having a central supporting strip *f* fastened thereon, said strip provided with a brace *h* having an eye *k*, to engage with the clamp *c*, by the bolt *i*, substantially as shown and described. 2nd. In a luggage carrier for bicycles, the combination consisting of the top rod *d d*, having eyes *e, e*, the connecting tie-rod *d¹*, with the central supporting strip *f* secured to said rods, the supporting rod *h* fastened to said strip and provided with an eye *k*, the canvas *B* having its upper edge stitched over the top rods *d, d, d, d¹*, the whole arranged and adapted to be secured to the rear of a bicycle frame by the bolt *b* and clamp *c*, substantially as shown and described. 3rd. In a luggage carrier for bicycles, the combination consisting of the top rod *d, d*, having eyes *e, e*, the connecting tie-rod *d¹*, with the central supporting strip *f* secured to said rods, the canvas *B* having its upper edge stitched over the top rods *d, d, d, d¹*, with the vertical supporting rods *r, r*, having their upper ends secured to the rear end of the rod *d* and their lower ends forked to engage on the bolt *m*, adapted to be attached to the rear portion of a bicycle frame by the bolts *b* and *m*, respectively, substantially as shown and described.

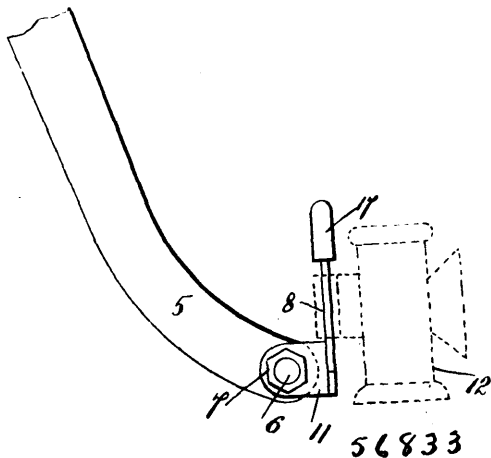
No. 56,832. Bicycle. (*Bicycle.*)



Carl Meier, New-Ruppin, Germany, 28th July, 1897; 6 years. (Filed 15th June, 1897.)

Claim.—1st. A crank mechanism, consisting of a shaft, a stationary gear arranged concentric therewith, an arm secured upon the shaft, a gear journaled in said arm, and a pedal crank so attached to the arm and gear as to cause its outer end to describe an eccentric path relative to the shaft, as specified. 2nd. A crank mechanism, consisting of a stationary gear, a shaft revolving concentric therewith, an arm secured upon said shaft, and a pedal crank so attached to said arm as to receive an eccentric motion relative to the shaft, as specified. 3rd. In combination a revolving shaft, an arm secured thereon, a stationary gear-wheel arranged concentric with said shaft, a short shaft *e*, journaled in one end of the arm, a gear-wheel secured upon said shaft and meshing with the first named gear, a short crank carried by the shaft *e*, and a pedal crank pivoted to the short crank and slidably attached to the opposite end of the arm, substantially as and for the purpose set forth. 4th. A crank mechanism consisting of a shaft *a*, an arm *c* secured thereon, a stationary gear arranged concentric with the shaft, the gears *f* and *f¹* secured upon the short shafts *d* and *e* respectively, cranks *g* and *m* carried by the short shafts, and a pedal crank pivoted to the crank *g* and slidably attached to the crank *m*, substantially as and for the purpose set forth. 5th. A mechanism, consisting of a shaft *a*, an arm *c* secured thereon, a stationary gear arranged concentric with the shaft, short shafts journaled in the outer end of the arm, two gears secured upon said shaft and meshing with the stationary shaft, and a pedal crank pivoted to the short cranks, substantially as and for the purpose set forth. 6th. A crank mechanism, consisting of a shaft *a*, an arm *c* secured thereon, a stationary gear *b* arranged concentric with the shaft, a short shaft *e*, journaled in one end of the arm, a gear-wheel *f* secured upon said short shaft and meshing with the stationary gear, a short crank *g* secured to the shaft *e*, a link *n* pivoted to the crank *g*, and a pedal crank *i* pivoted to the long member of the arm *c* and to the link, substantially as and for the purpose set forth.

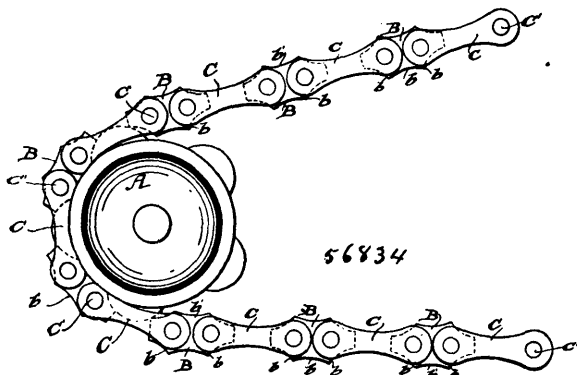
No. 56,833. Bicycle Lock. (Serrure de bicycles.)



West Montgomery Carson, New York, State of New York, U.S.A. 28th July, 1897; 6 years. (Filed 17th June, 1897.)

Claim.—1st. A holder and lock for lamps or lanterns for bicycles or similar vehicles, said holder consisting of an upright plate which is adapted to be secured to the frame of the vehicle, and which is provided with an upwardly directed extension, and a lock which is adapted to be connected with said extension, substantially as shown and described. 2nd. A holder and lock for lamps or lanterns for bicycles or similar vehicles, said holder consisting of an upright plate which is adapted to be secured to the frame of the vehicle, and which is provided with an upwardly directed extension, and a lock which is adapted to be connected with said extension, said lock consisting of a casing provided with a spring, and said extension being provided with a notch or recess in connection with which said spring operates, substantially as shown and described. 3rd. A support and lock for the lamps or lanterns of bicycles and similar vehicles, consisting of a plate as 8, having an upwardly directed extension, in one side of which is formed a notch or recess, and a lock comprising a casing which is open at its lower end and into which said extension is adapted to be inserted, said casing being provided with a spring which is adapted to engage with said notch or recess, and which is adapted to be operated by a key, substantially as shown and described.

No. 56,834. Sprocket Gearing. (Roue dentée.)

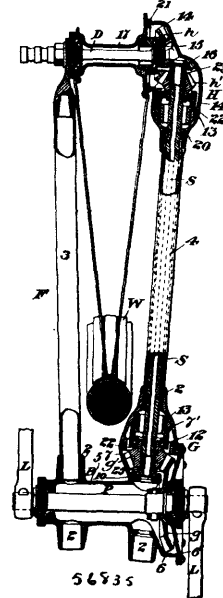


Charles O. Hall, Cincinnati, Ohio, U.S.A., 28th July, 1897; 6 years. (Filed 19th June, 1897.)

Claim.—1st. In combination with the sprocket-wheel of different diameters, the smaller wheel having curved sprockets and marginal projecting rims, the larger wheel having sprockets and a periphery which is made up of said sprockets and alternate bearing surfaces or segments, the curve of which has the same radius of curvature as the marginal rim of the smaller wheel, together with a chain having central links with curved bearing surfaces which are adapted to contact with the sprockets and faces of the sprocket wheels, and outer links, the contacting edge of which has the same radius of curvature as the marginal projecting rims of the smaller sprocket wheel, substantially as shown. 2nd. A sprocket chain made up of a series of central links of the sides of said links, having edges shaped to present three concave bearing surfaces, the central bearing surface having the same radius of curvature as the peripheries of the sprocket-wheel, the end concave bearing surfaces having the same radius of curvature as the sprockets and outer links, the contracting edges of which are shaped to correspond with the periphery of the smaller sprocket-wheel, substantially as shown and for the

purpose set forth. 3rd. In combination with the sprocket-wheels having convex sprockets, of a chain having central links for engagement with said convex sprockets, the end portions of the links where they engage with the sprockets being concave, and an intermediate concave bearing edge, substantially as shown and for the purpose set forth. 4th. A sprocket chain made up of a series of central links and side links connected thereto, the central links having concave end bearing portions adapted to engage the periphery of the sprocket-teeth, substantially as shown and described.

No. 56,835. Bicycle. (Bicycle.)

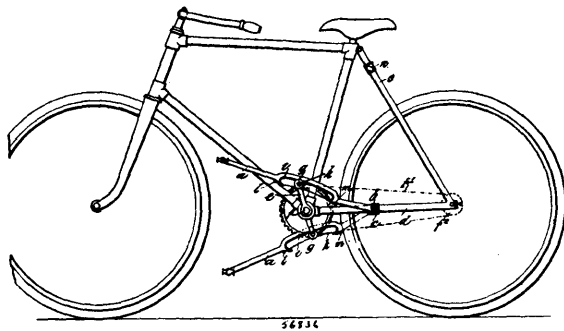


Francis H. Richards, Hartford, Connecticut, U.S.A., 28th July, 1897; 6 years. (Filed 21st June, 1897.)

Claim.—1st. In a bicycle of the class specified, in combination, a crank-shaft bracket and a driving-wheel bracket each having a longitudinally and a laterally disposed gear-receiving case, a side-frame tube extending between the said brackets and having a removable connection at one end with the laterally-disposed gear-receiving case of the crank-shaft bracket, and having a removable connection at its opposite end with the laterally-disposed gear-receiving case of the driving-wheel bracket, means for removably connecting the side-frame tube with said gear receiving cases, a crank-shaft carried by the crank-shaft bracket and carrying a bevel-gear inclosed by the longitudinally-disposed gear-receiving case of said bracket, a driving-wheel carried by the driving-wheel bracket and carrying a bevel-gear inclosed by the longitudinally disposed gear-receiving case of said bracket, two oppositely-disposed side gears mounted, one in fixed bearings in the laterally-disposed gear-receiving case of the crank-shaft bracket and meshing with the crank-shaft gear, and the other mounted in fixed bearings in the laterally-disposed gear-receiving case of the driving-wheel bracket and meshing with the driving-wheel gear, and a rigid side shaft incased by the side-frame tube and having laterally and longitudinally-movable connection at its opposite ends with the two side gears, respectively. 2nd. In a bicycle, a crank-shaft bracket and a driving-wheel bracket each having a laterally-projecting open-ended gear-receiving case, in combination with a side shaft inclosing tube carrying open-ended caps at opposite ends thereof adapted for fitting the laterally-projecting cases of said brackets. 3rd. In a bicycle, the combination with the crank-shaft bracket and the driving-wheel bracket, each of which has an open-ended gear-receiving case, and with the side shaft inclosing tube carrying open-ended caps at opposite ends thereof removably fitted to the laterally-projecting cases of said brackets, of a crank-shaft inclosed by said crank-shaft bracket and having a gear inclosed by the casing of the driving-wheel bracket, two independent side shaft gear-wheels inclosed by and having fixed bearings in the laterally-projecting cases of the two brackets, one in each case, and a side shaft inclosed by the side shaft inclosing tube and having laterally-movable connections at opposite ends with the two side-shaft gears. 4th. In a bicycle, a crank-shaft-inclosing bracket comprising a tubular body portion having a crank-shaft-gear-receiving case at one end thereof, and having a laterally-projecting side-shaft-gear-receiving case at one side thereof, and caps removably secured to said gear-cases. 5th. In a bicycle, in combination, the main bracket having the open flared end and cup-shaped lateral extension which form housings for the pedal-shaft gear and side-shaft gear, a cap removably secured to the flared end of said bracket, a cup-shaped cap removably fitted to the lateral extension of said bracket, a rear bracket and a side

tube connecting the casing of the first-mentioned bracket with the last-mentioned bracket. 6th. In a bicycle, a crank-shaft bracket comprising a tubular body portion having a laterally-disposed and a longitudinally disposed gear-receiving case at one end thereof, and opening one case into the other and provided, each case, with a removable cap, in combination with a crank-shaft having a bearing at one end in the cap of the longitudinally-disposed case, and at its opposite end in the tubular body portion thereof, and carrying a bevel-gear inclosed by said longitudinally-disposed case, a bevel-gear inclosed by and having fixed bearings in the laterally-disposed case, and adapted for movable connection with the side shaft. 7th. In a bicycle, the combination with the pedal-shaft and its gear, and the driving-wheel and its gear, of a tubular bracket inclosing the pedal-shaft and pedal-shaft gear and having a lateral cup-shaped extension to form a casing for a side-shaft gear, a bracket adjacent to the driving-wheel and having a casing inclosing the driving-wheel gear and adapted to receive and inclose a side-shaft gear, a side tube having cup-shaped extensions at opposite ends in removable engagement with the side-shaft gear casings, and two side-shaft gears supported one at each end of the side-shaft in fixed bearings in the two casings, respectively, and connected with the side-shaft so as to permit a lateral movement of said shaft relative to said gears. 8th. In a bicycle, the combination of a relatively rigid crank-shaft bracket having a longitudinally-disposed and a laterally-disposed gear-case secured thereto, a relatively rigid driving-wheel bracket having a laterally-disposed gear-receiving case fixedly secured thereto, two relatively flexible side tubes one of which has an enlarged extension at each end thereof one extension being removably secured to the laterally-disposed case of the crank-shaft bracket and the other extension being removably secured to the laterally-disposed case of the driving-wheel bracket, a crank-shaft journaled in the crank-shaft bracket and carrying a gear-wheel inclosed by one of the cases of said bracket, a driving-wheel carried by the driving-wheel bracket and having a gear-wheel inclosed by the case of said bracket, two independent gears one of which meshes with the gear of said driving-wheel and has a fixed bearing in the driving-wheel-bracket case adapted to support the outer end of said gear and the other of which meshes with the crank-shaft gear and has a fixed bearing in the laterally-disposed case of the crank-shaft bracket adapted to support the outer end of said gear, adjustable bearings in the enlarged extensions of the side tube and adapted to support the inner ends of said respective gears, and a side shaft incased by said side tube and having laterally and longitudinally movable connections at its opposite ends with two independent gears.

No. 56,836. Cycle Propelling Mechanism.
(*Mécanisme de propulsion pour cycles.*)



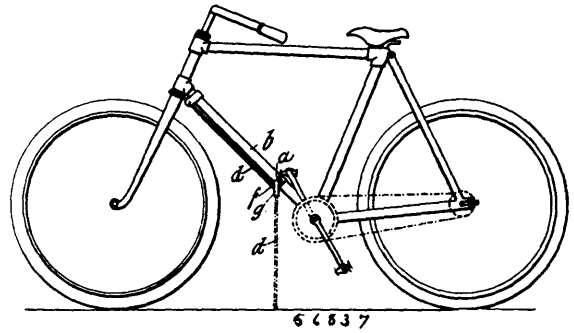
George Thomas Booth and William Scott, both of Canterbury, New Zealand, 28th July, 1897; 6 years. (Filed 23rd June, 1897.)

Claim.—1st. In a cycle propelling mechanism the combination of a sprocket pinion upon the driving wheel of the machine driven from a sprocket which has rotary motion communicated to it by cranks upon its axle carrying rollers engaging with curved slots in vibratory pedal levers pivoted upon the frame of the machine, substantially as specified. 2nd. In combination, vibratory pedal levers *a*, journaled upon pins *b*, carried upon brackets *c*, secured to the chain stays *d*, curved brackets *i*, upon the levers *a*, rollers *g*, journaled upon pins *k*, of the cranks *e*, secured to spindle *f*, having a sprocket driving wheel fixed upon it, communicating motion to a pinion *f*², substantially as specified. 3rd. In combination the pivoted pedal lever *a*, the spindle *f*, having a crank *e*, carrying a flanged roller *g*, a curved bracket *i*, upon the lever and a correspondingly curved guard *k*, hinged at one end to the bracket and secured by a bolt at the other, substantially as specified. 4th. In combination a vibratory pedal lever pivoted at one end to a frame of a cycle and a spring clip *n*, secured to the frame above it, substantially as and for the purposes herein described.

No. 56,837. Bicycle Support. (*Support de bicycles.*)

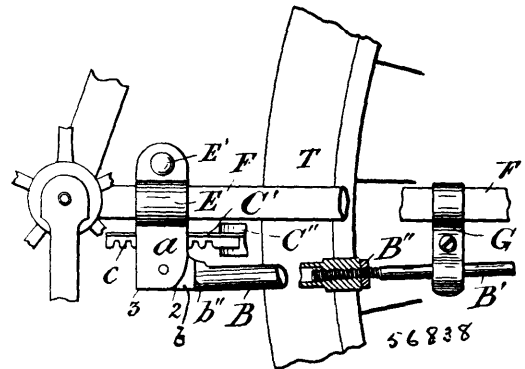
Edwin Robert Stanfield and Thomas De Renzy Harman, both of Canterbury, New Zealand, 28th July, 1897; 6 years. (Filed 23rd June, 1897.)

Claim.—1st. In bicycle support consisting of a prop pivotally connected to a bracket clamped to the frame, means for preventing side-



play of the prop and for retaining it at the best angle to support the machine, substantially as herein described. 2nd. In combination, a prop pivotally connected to a bracket clamped to the frame of a bicycle, a sheath projecting from the bracket having channels, into one or other of which the prop takes when required to support the machine, substantially as and for the purposes herein described. 3rd. A prop having a bifurcated end in which are oblong holes receiving a pin, hinging the prop to a swivel piece pivoted upon a bracket, clamped to the frame of a bicycle, an ear upon the bracket, passing between the bifurcation and a lip under the prop taking into a recess in the ear, substantially as and for the purposes herein described. 4th. A prop, one end having an eye in which is an oblong hole receiving a pin, hinging the prop to a swivel piece pivoted upon a bracket clamped to the frame of a bicycle, a projection upon the prop taking into a recess in the underside of the bracket when the prop is in supporting position, substantially as and for the purposes herein described.

No. 56,838. Bicycle Support. (*Support de bicycles.*)

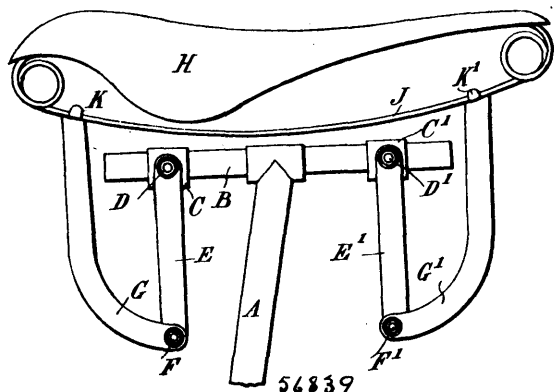


Horace Walter Chamberlin, Ottawa, Ontario, Canada, 28th July, 1897; 6 years. (Filed 25th June, 1897.)

Claim.—1st. In a bicycle support, the combination of a saddle plate with angularly disposed lugs, a pair of legs each having one end shouldered and flattened and pivoted to one of the said lugs, a toothed sector formed on each flat end of each leg, a plate secured slidingly in the gullet of said saddle plate and provided near each edge with a toothed rack adapted to gear into one of said sectors, a brake shoe at one end of said sliding plate adapted to press against the wheel tire, a spring clip secured to the upper face of said saddle plate and adapted for attachment to the parts of a bicycle between the crank axle and the rear wheel tire, a cross-piece or stay secured to the pivots of the legs and forming washers on the flat ends, a bow spring on said stay pressing on the underside of said sliding plate and spring clips secured to the rear wheel fork bars adapted to carry said legs, substantially as set forth. 2nd. In a bicycle support, the combination of a saddle plate with angularly disposed lugs, each having one corner rounded and the other square, a pair of legs having shouldered and flattened ends pivoted to said angular sides, one on each, a toothed sector formed on the edge of each flattened end, a groove in each angular lug near the upper plate, a sliding plate in the gullet of said saddle plate having its edges secured slidingly in said grooves, and rack teeth formed on each side of said sliding plate, angularly disposed to be parallel to the angular lugs and adapted to gear in said sectors, substantially as set forth. 3rd. In a bicycle support, the combination with the rear wheel fork bars, of a saddle plate having angularly disposed sides, having their forward corners square and the rear corners rounded, a pair of legs having their upper ends flattened and shouldered and one pivoted to the inner face of each angular lug, a toothed sector formed on the edge of each flattened end of said legs, a plate secured slidingly in the gullet of said saddle plate and provided near each edge with a toothed rack angularly disposed to be parallel to the

adjacent angular lug of the saddle plate and adapted to gear in the sector on the leg end, and a spring clip secured to the upper face of said saddle plate and adapted to be secured to the rear wheel fork bars, substantially as set forth. 4th. In a bicycle support, the combination with the rear wheel fork bars and rear wheel tire, of a saddle plate having angularly disposed lugs, a pair of legs having their upper ends flattened and shouldered and one pivoted to the inner face of each angular lug, and said shoulder adapted to bear on the edge of said lug, a toothed sector formed on the edge of each flattened end of said legs, a plate secured slidingly in the gullet of said saddle plate and provided near each edge with a toothed rack angularly disposed to be parallel to the adjacent angular lug and adapted to gear in the sector in the leg end, a brake shoe on said rack plate, a spring clip secured to the upper face of said saddle plate and adapted to be secured to the fork bars, and a spring clip on the fork bars adapted to carry the free end of one of said legs, substantially as set forth. 5th. In a bicycle support, the combination with the rear wheel fork bars, of a clip secured to said fork bars adapted to carry a plate or bracket, a saddle plate secured to said clip and provided with angularly disposed lugs, a leg pivoted to each lug, a sector formed on the pivoted end of each leg, a plate held slidingly in the gullet of said saddle plate, racks on said sliding plate gearing in the sectors on the legs, and a brake shoe on said sliding plate, substantially as set forth. 6th. In a bicycle support, the combination of a saddle plate having angularly disposed lugs, a pair of legs having shouldered and flattened ends pivoted to the said lugs, one to each, toothed sectors formed on said flat ends, a sliding plate disposed in the gullet of said saddle plate and provided with racks adapted to gear in said sectors, extensible ends inserted in said legs and held by screw threads and lock nuts, means of carrying said saddle plate on a suitable part of a bicycle and means of carrying said legs when folded, substantially as set forth.

No. 56,839. Means of Attaching the Saddles or Seats of Bicycles. (*Moyen d'assujettir les sièges ou selles de bicyclettes.*)



Frederick Carleton Esmond, Brooklyn, New York, State of New York, U.S.A., 28th July, 1897; 6 years. (Filed 5th April, 1897.)

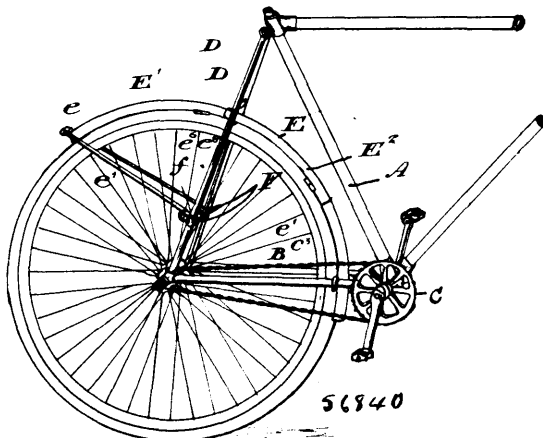
Claim.—1st. In the support of a saddle or seat for bicycles and other vehicles, the employment of hanging and of standing links articulated together below the point of attachment to the crutch bar, or other part of the frame of the vehicle, substantially as set forth. 2nd. In the support of a saddle or seat for bicycles and other vehicles, the combination of hanging links, standing links, and ties, substantially as set forth. 3rd. The combination of hanging links, standing links articulated thereto below the level of the crutch bar or other part of the frame of the vehicle, and a saddle or seat attached to the said standing links in any convenient manner, substantially as set forth. 4th. The combination of a crutch bar, hanging links articulated thereto, standing links articulated to the said hanging links below the level of the crutch bar, and a saddle attached to the said standing links in any convenient manner, substantially as set forth. 5th. The arrangement and combination of parts, substantially as set forth.

No. 56,840. Mud Guard for Bicycles. (*Garde-crotte pour bicyclettes.*)

Mary Ellen Annand, Udora, Ontario, Canada, 28th July, 1897; 6 years. (Filed 25th June, 1897.)

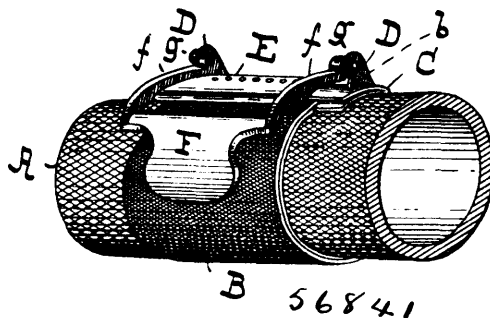
Claim.—1st. A mud guard made in sections substantially arcs of the same circle and a supporting means for connecting them to the frame of the bicycle, as and for the purpose specified. 2nd. A mud guard made in sections substantially arcs of the same circle, an eye formed on the rearmost section and the bracing spring arms having the looped end extending through such eye and the tubular brackets having sockets to receive the ends of the arms, the eye on the inner side of the lowermost section and the cross bar extending through such eye having spring hooks fitting on to the lower reaches, as and for the purpose specified. 3rd. A mud guard made in sections substantially arcs of the same circle, the projecting lugs e^0 and

e^7 , extending inwardly from the ends of the sections E^2 and E^3 , and the hook-shaped lugs e^8 and e^9 designed to come in contact with



the lugs e^0 and e^7 when the sections are extended, and means for holding the extended sections in position upon the frame, as and for the purpose specified.

No. 56,841. Patches for Fire Hose and Pneumatic Tires of Vehicles. (*Pièces pour boyaux à incendie et bandage pneumatique de voitures.*)



John Rudge Hare, Baltimore, Maryland, U.S.A., 28th July, 1897; 6 years. (Filed 25th June, 1897.)

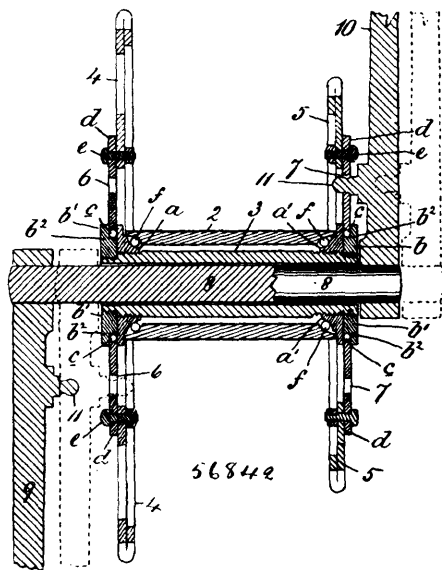
Claim.—1st. In a hose patch, a flexible band having a curved plate at each end, adapted one to overlap the other, combined with lever mechanism to effect such overlapping, substantially as specified. 2nd. In a hose patch, a flexible band having a curved plate at each end, adapted to overlap around the hose, the said plates having slots which register as the plates are brought together, combined with locking mechanism to hold the overlapped plates together, substantially as specified. 3rd. In a hose patch, a flexible band having a curved folded plate at each end, adapted one to overlap the other around the hose, one of said plates having hooks, and the other levers with pins to engage with the hooks, whereby as the levers are brought into contact with the band, the same is stretched substantially as specified. 4th. In a hose patch, a flexible band having a curved plate at each end adapted one to overlap the other around the hose, one of the said plates having hooks and the other hinged curved levers with pins at their ends adapted to engage with the hooks, whereby as the said curved levers are forced down in contact with the band, the said band will be stretched, substantially as specified.

No. 56,842. Bicycle Changeable Gear. (*Engrenage de bicyclette variable.*)

Theodore W. Ralph, North Augusta, Ontario, Canada, 28th July, 1897; 6 years. (Filed 29th June, 1897.)

Claim.—1st. The combination with the bicycle crank bracket or tubular bearing 2, and the crank arms 9 and 10, having a projecting pin 11, of the hollow spindle 3, inserted in said crank bracket or bearing, collars a, a^1 , screwing on the ends of said spindle respectively, sprocket wheel 4 and 5 sleeved on the ends of said spindle and having holes 6 and 7, respectively, arranged in a circle to be engaged by said pins, set nuts b, b^1 , screwing on said spindle and jamming the sprocket wheels against their respective collars, and the crank arms 9 and 10, connected by a shaft or bolt 8, passing through said spindle, whereby the sprocket wheels are stationary, laterally, and the bolt or shaft moves endwise to effect engagement of the crank arms and sprocket wheels, as set forth. 2nd. The combination in a bicycle having duplicate sprocket wheel and chain driving mechanisms, of the spindle 3, inserted in the crank bracket

or tubular bearing 2, of the frame of the bicycle, said spindle having collars *a, a'*, near the ends, sprocket wheels 4 and 5, sleeved on said



spindle and jammed against said collars, by set nuts *b, b'*, screwing thereon, and the crank arms 9 and 10, provided with pin 11, and connected by a shaft or bolt 8, passing through said spindle substantially as described and operating as set forth.

No. 56,843. Body Support for Bicycle Riders.

(Support pour bicyclistes.)

Fig. 1.

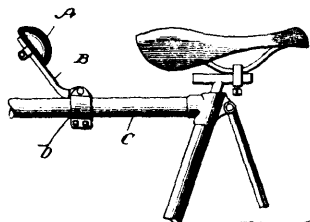
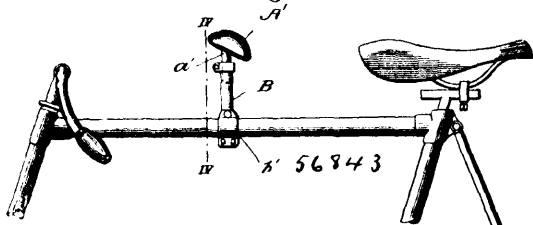


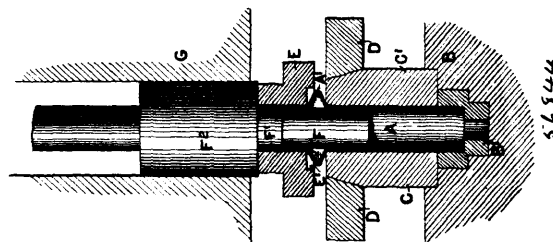
Fig. 2.



Henry Andrew Christy, Jackson, Michigan, U.S.A., 28th July, 1897; 6 years. (Filed 30th June, 1897.)

Claim.—1st. In combination with a bicycle frame, a single elastic pad or cushion supported on said frame so that the pubic bone of the rider of the bicycle may abut against or rest on said pad, to afford ease and comfort in riding, and to enable the rider by a change of position to utilize to greater advantage the force exerted on the cranks or pedals in propelling the machine, substantially as described. 2nd. In combination with the bicycle, a cushioned body-support comprising a supporting bar mounted on the frame thereof and carrying a single pad or cushion arranged in proper relation to adapt it to abut against the pubic bone of the rider mounted on the machine, and means for raising and lowering said pad and for adjusting it toward or from the seat, substantially as described. 3rd. In combination with the bicycle, a spring bar secured at one end to the frame thereof, and having a single pad or cushion on its face end arranged in such relation as to provide a yielding rest or support for the pubic bone of the rider mounted on the machine, substantially as described.

No. 56,844. Method of Manufacturing Hubs for Wheels. (*Méthode de fabrication de moyeux de roues.*)

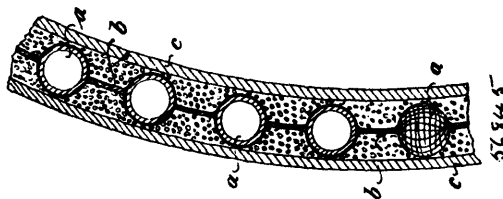


The Standard Weldless Tube and Cycle Components, Philpot Lane, London, England, assignees of Rudolph Chillingworth, Ostbahnhof, Nuremberg, Germany, 28th July, 1897; 6 years. (Filed 30th June, 1897.)

Claim.—1st. The method or process for producing flanges on tubes, such as for the hubs of velocipedes and other wheels, consisting in properly heating the tube as required, placing the end of same into a recessed bed, inclosing the lower part of tube by a casing, and placing a ring upon the upper end, while a movable plunger enters the tube, the plunger having a shoulder to act upon the end of tube, and a shoulder to act upon the upper ring, and so that the tube is supported excepting at the exterior surface of the part where the flange is to be formed, then applying pressure by a downward movement of the plunger and thereby causing a bulging outwards of the unsupported walls of the tube, the part forced out being pressed into the form of flange required, as set forth. 2nd. In machinery for producing a flange or flanges on tubes from the circular walls of same, the combination with a recessed bed to receive the end of a vertically placed tube, a vertically divided casing to inclose the circular walls of the lower part of the tube, a recess in the bed to receive the lower end of the casing, and a clamping ring to encircle the upper end of same to clamp the two parts thereof together, of an encircling ring to fit onto the upper end of the tube, a recess on the under surface of the ring to give form to the flange to be produced, a pressing plunger fitting and passing into the interior of the tube, an exterior flange on the plunger to act upon the upper end of the tube, and a further exterior flange on the plunger to act on the encircling ring, as set forth. 3rd. A hub for velocipede and other wheels formed from one piece of metal tube, consisting of a central cylindrical tubular portion, two exterior flanges at a distance apart, upon such tube, and a tubular extension beyond each flange, as set forth.

No. 56,845. Elastic Filling for Cushions, etc.

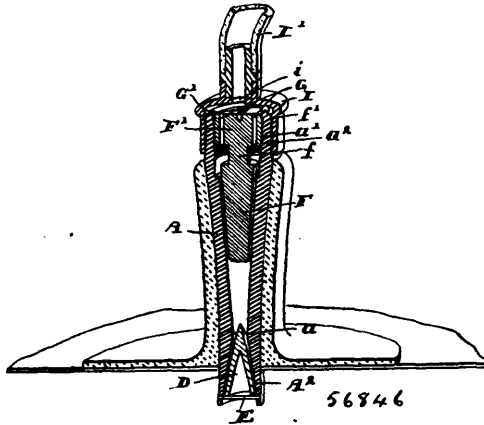
(Composition élastique pour remplir les coussins, etc.)



Julius Deborde, Lindenstrasse 16 and 17, Berlin, Germany, 28th July, 1897; 6 years. (Filed 5th July, 1897.)

Claim.—1st. An improved filling or stuffing for cushions of any kind, especially for cycle tires, cycle saddles, cycle handles and the like, consisting of spongy gelatine. 2nd. An improved filling for cycle tires, saddles, handles, cushions and stuffings, consisting of spongy gelatine, into which for augmenting the elasticity and for diminishing the weight there are embedded hollow rubber balls, tubes or other elastic bodies. 3rd. An improved filling for cycle tires, saddles and handles consisting of spongy gelatine with therein embedded elastic balls, surrounded with a plaiting or otherwise connected with one another to form chains. 4th. An improved process for producing spongy gelatine, in which the gelatine-like mass produced of glue, glue mixture or similar substances, with addition of glycerine and an antiseptic substance, is liquidified by heating and is transformed into foam in the liquid state by mechanical agitation, such as beating, stirring, centrifugal motion or the like, this foam being pumped into tubes or cushions and congealed therein or cast in forms and surrounded with appropriate covering after the congealing. 5th. An improved process for producing spongy gelatine, in which form aldehyd is added to the gelatine-like mass, for the purpose of avoiding putrefaction and preventing the mass from softening at an elevated temperature.

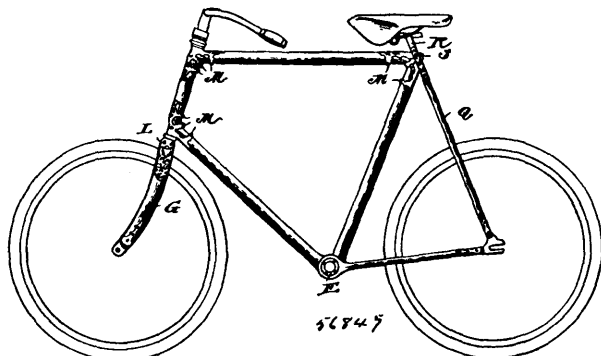
No. 56,846. Air Valve. (Soupape à air.)



Henry Alfred Wood, Kingston, Ontario, Canada, 28th July, 1897; 6 years. (Filed 2nd July, 1897.)

Claim.—1st. In an air valve, in combination, the shank having an opening extending therethrough, the tapered lower portion of the opening, the hollow ground conical valve plug fitting such tapered lower portion, and a stop pin extending through the lower portion of the shank outside of the valve and designed to limit its movement as and for the purpose specified. 2nd. In an air valve, in combination, the shank having an opening extending therethrough, the tapered lower portion of the opening, the hollow ground conical valve plug fitting such tapered lower portion and a stop pin extending through the lower portion of the shank outside of the valve, and designed to limit its movement, the upper tapered portion converging to the lower tapered portion, the upper valve plug having lower tapered ground portion, passage-ways extending through the plug, and means for adjusting and securing such plug in position on or off its seat, as and for the purpose specified. 3rd. In an air valve, in combination, the shank having an opening extending therethrough, the tapered lower portion of the opening, the hollow ground conical valve plug fitting such tapered lower portion and a stop pin extending through the lower portion of the shank outside of the valve, and designed to limit its movement, the upper tapered portion converging to the lower tapered portion, the upper valve plug having lower tapered ground portion, the stem, the head, the passage-ways in the head, the external thread formed on it fitting into a corresponding thread in the interior of the shank and means for turning the plug to raise and lower it, as and for the purpose specified. 4th. In an air valve, in combination, the shank, having an opening extending therethrough, the tapered lower portion of the opening, the hollow ground conical valve plug fitting such tapered lower portion and a stop pin extending through the lower portion of the shank outside of the valve and designed to limit its movement, the upper tapered portion converging to the lower tapered portion, the upper valve plug having lower tapered ground portion, the stem, the head, the passage-ways in the head, the external thread formed on it fitting into a corresponding thread in the interior of the shank, a cross slot in the top of the head, the cap and the knife edge projection in the cap, as and for the purpose specified. 5th. In a valve, the combination with the shank externally threaded at the top, of the screw cap, the internal disc of babbitt-metal fitting in the interior of the top of the cap and the upwardly extending projections on the cap, arranged as and for the purpose specified.

No. 56,847. Bicycle. (Bicycle.)

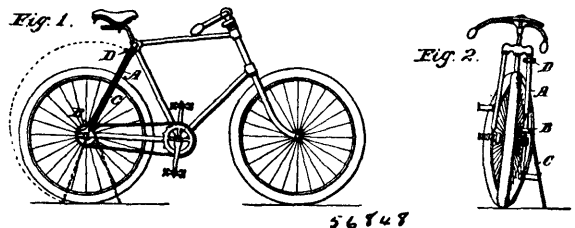


Phineas Hiram York, Chicago, Illinois, U.S.A., 28th July, 1897; 6 years. (Filed 2nd July, 1897.)

Claim.—1st. A bicycle, the frame of which is formed of strips of wood laminated and the laminations being continuous around the

angles or bends of the frame, substantially as described. 2nd. A bicycle frame whereof the steering head post, the top and bottom bars and rear post are constructed integrally with each other from strips of wood laminated and the laminations extending continuously around the angles or bends of the frame and without joints at such bends or angles, substantially as described. 3rd. A bicycle frame composed of strips of wood, the laminations whereof are continuous around the angles of the frame and a crank bearing embraced by the laminations of the frame, substantially as described. 4th. A bicycle frame whereof the steering head post, top and bottom bars and rear post are constructed integrally with each other from strips of wood laminated and the laminations being continuous around the angles of the frame and provided with suitable bearings and with a longitudinal cavity, substantially as described. 5th. A bicycle frame composed of two mating parts, each part being formed of strips of wood and adapted to be fitted one within the other and having suitable bearings therein, substantially as described. 6th. A fork for bicycles, the crown and tines whereof are integrally formed of laminated strips of wood, substantially as described. 7th. A wooden bicycle frame having a steering head post provided with a longitudinal cavity, a tubular metal sheath or lining for said cavity, said tubular lining having conical cup bearing members secured thereto, a steering head journaled within said tube or lining and having conical bearing cups secured thereto and a front fork clamped to said steering head, substantially as described. 8th. The combination with a bicycle fork composed of strips of wood laminated and bent to provide the crown and tines of said fork of metal clamps embracing the side of said crown, and one of said clamps being secured to the steering head, substantially as described. 9th. A clamp for the steering head post of a bicycle, said clamp having its central portion perforated for the passage of the steering head post and providing a seat or bearing for the cup of the steering head bearing and said clamp having angular flanges with integral straps adapted to embrace the frame and clamping bolts for tightening said straps, substantially as described. 10th. A clamp for bicycles adapted to embrace the upper rear angle of the diamond frame and having a semi-cylindric cavity or seat, a socket piece to receive the seat post and rear fork members and a U-bolt adapted to pass around the frame and clamp and having its ends extended through said socket piece with means for compressing the latter to frictionally secure the seat post, substantially as described. 11th. In combination with the drop frame of a bicycle, the rear post whereof is provided with a longitudinal cavity or socket, of a seat post clamp split or severed longitudinally and having a bearing upon the upper end of said post and straps embracing said post, a clamping bolt for said strap and a clamping bolt adapted to pass through the upper end of said split clamp and the upper ends of the rear fork members, substantially as described. 12th. The combination in a bicycle frame, of a frame member having a seat post socket therein, a split clamp mounted on said socketed member, said clamp having conical sockets, conical cups working in said sockets and a clamping bolt where by the rear stays may be clamped to said conical cups, substantially as described. 13th. The combination with a crank shaft having a flattened portion of a sprocket spider having an aperture adapted to receive the flattened portion of the shaft, and a clamping bolt whereby the spider may be clamped upon the shaft, substantially as described. 14th. The combination with a crank shaft having a wedge shaped portion, of a sprocket spider having a wedge shaped aperture, and a slot extending from said aperture into one of the spider arms, a clamping bolt passing through the members of said split arm and engaging also with a notch in the crank shaft, and said spider having a crank arm secured thereto and being adapted for connection with a toothed rim, substantially as described.

No. 56,848. Bicycle Support. (Support de bicyclet.)

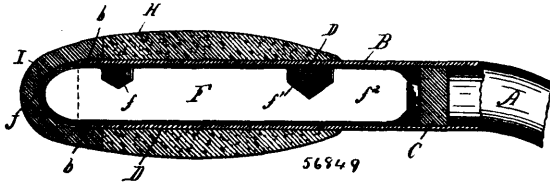


Daniel W. Albright, Cedar Rapids, Iowa, U.S.A., 28th July, 1897; 6 years. (Filed 10th July, 1897.)

Claim.—1st. The combination with the frame of a bicycle, and a supporting collar provided with an angled face, of a support having a correspondingly angled face and a rectangular inclined sided aperture, a stud revolvably secured to the collar and having a squared head projecting into the rectangular aperture of the support, and a pintle transverse with respect to the stud pivotally securing the support to the squared head of the stud, substantially as specified. 2nd. In a support for bicycles, the combination with a supporting collar, of a support pivoted thereto, said collar having two separate and distinct faces upon the opposite sides of the pivot and at an angle with respect to each other, the line of juncture of the faces extending entirely across the collar and diametrical with respect to the pivot, and said support pivoted to the supporting collar being

provided with an angled face corresponding to and adapted to cooperate with the supporting collar, substantially as set forth. 3rd. In a support for bicycles, the combination with a supporting collar having two separate and distinct faces and at an angle to each other, of a revoluble stud projecting from the collar and provided with a squared end, a support provided with an angle end, and with a square-inclined-sided aperture, and a pintle passing transversely through the support and the square head of the stud, substantially as set forth.

No. 56,849. Bicycle Handle. (Manche de bicycles.)



Moritz Gutmann, Victoria, B.C., Canada, 28th July, 1897; 6 years.
(Filed 7th June, 1897.)

Claim.—1st. A bicycle handle bar, comprising the tubing, the hand-hold covering the same, a stop in said tube forming the inner end of a tool receptacle, and a removable cap fitting the outer end of the tube and closing the same, substantially as set forth. 2nd. A bicycle handle bar having its tube provided with a stop forming the inner end of a tool receptacle and provided with partitions dividing said receptacle into compartments, and the cap closing the outer end of the tube, substantially as shown and described. 3rd. A bicycle handle bar provided with a stop forming the inner end of the tool receptacle, the partitions extended longitudinally in said receptacle and provided with spring tongues or portions, and the cap by which to close the outer end of the handle bar, substantially as shown and described. 4th. A bicycle handle bar, comprising the tube G provided at its end with a tool receptacle and having upon the said tube over the receptacle a hand-hold terminating a short distance from the end of the tube, and the cap fitted on the extended end of the tube and abutting the outer end of the hand-hold, substantially as shown and described. 5th. The improved bicycle handle bar herein described, consisting of the tube, the rubber plug in said tube and forming the inner end of the tool receptacle longitudinally into compartments and provided with spring tongues or portions having a lateral tension, the hand-hold or said tube over the tool receptacle and terminating at its outer end a short distance from the outer end of the tube, and the cap having in its inner side a cushion and fitted and secured on the extended end of the tube and abutting the outer end of the hand-hold, all substantially as shown and described.

TRADE - MARKS

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Copyright and Trade-Mark Branch.

6101. ADAMS & SONS COMPANY, Brooklyn, N.Y., and Chicago, Ill., U.S.A. Chewing Gum, 2nd July, 1897.
6102. THE HARTFORD CYCLE COMPANY, Hartford, Conn., U.S.A. Vehicles and parts thereof, 2nd July, 1897.
6103. THE AMERICAN DUNLOP TIRE COMPANY, incorporated under the laws of the State of New Jersey, U.S.A., and carrying on business in Canada, at Toronto, Ont. Rims and tires for Bicycles, Tricycles and Vehicles, 3rd July, 1897.
6104. JOSEPH ALPHONSE, et JOSEPH ERNEST, DUSSAULT, Québec, Qué., faisant affaires sous la raison sociale de B. HOUDE & COMPAGNIE. Tabac coupé, 5 juillet 1897.
6105. BENJAMIN CLEWES RAINSFORD, Ottawa, Ont. A medicinal remedy for the cure of Rheumatism, 6th July, 1897.
6106. THE TORONTO SILVER PLATE COMPANY, LIMITED, Toronto, Ont. Sterling Silver, 7th July, 1897.
6107. HORMISDAS LAPORTE, Montreal, Que. Canned Goods, such as Fish, Meats, Vegetables and Fruits, 8th July, 1897.
6108. THE MANITOBA BUILDING PAPER COMPANY, Winnipeg, Man. Building Paper, 9th July, 1897.
6109. THE BALL AND SOCKET FASTENER COMPANY, Nashua, New Hampshire, U.S.A. Fasteners for Gloves, Garments, &c., 12th July, 1897.
6110. S. DAVIS & SONS, Montreal, Que. Cigars, Cigarettes and Tobaccos, 13th July, 1897.
- 6111 } E. T. DANIELS & COMPANY, St. Dunstan's Hill, London, England.
6112 } Tea, 13th July, 1897.
6113. GEORGES RENÉ BLOT, Paris, France. Navette pour metiers à tisser, 13 juillet, 1897.
6114. W. POWELL HARVEY & COMPANY, Montreal, Que. Gems and Jewels, 13th July, 1897.
6115. ABRAM LYLE & SONS, LIMITED, 21 Mincing Lane and Plaistow Wharf, Victoria Docks, London, England. Confectionery, 14th July, 1897.
6116. COLEMAN & COMPANY, Norwich, England. Extract of Meat and Malt Wine with Iron, 15th July, 1897.
6117. DAVID RUSSELL, St. John, N.B. Medicines and Beverages of a refreshing and laxative nature, 16th July, 1897.
- 6118 } ACTIEN GESELLSCHAFT FÜR FEINMECHANIK, vormalis JETTER
6119 } & SCHEERER, Tutthngen, Wurttemberg, Germany. Surgical Instruments, Medical Appliances and kindred accessories, 19th July, 1897.
6120. BROWN BROTHERS, Detroit, Mich., U.S.A. Cigars, 19th July, 1897.
6121. S. DAVIS & SONS, Montreal, Que. Cigars, Cigarettes, Tobaccos, 19th July, 1897.
6122. W. MIELCK, Hamburg, Germany. Chemical and Pharmaceutical Products and Preparations, 19th July, 1897.
6123. THE PORT HOPE PRESERVING AND CANNING COMPANY, LIMITED, Port Hope, Ont. Preserved and Canned Goods, 23rd July, 1897.
6124. THE WORCESTER CORSET COMPANY, Worcester, Mass., U.S.A. Corsets and Waists, 27th July, 1897.
6125. STEPHEN SMITH & COMPANY, 51 Malmesbury Road, Bow, London, England. Brandy, Gin, Geneva, Hollands, Schiedam, Rum, Cordials (alcoholic), Cider, Perry, Wines, Meat and Malt Wines, Coca Wines, Kola Wines, and other chemically prepared wines for use as medicine, 30th July, 1897.

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6126. THE GAULT BROTHERS COMPANY LIMITED, Montreal, Que.
Dry Goods, such as gentlemen's haberdashery and furnishings,
underclothing, hosiery and waterproof Clothing, 30th July,
1897.
6127. THE E. BROAD & SONS COMPANY, LIMITED, St. Stephen, N.B.
Tools, 30th July, 1897.

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9334. O TO BE YOUNG! Words by Rev. R. Walter Wright. Music by John Marchant Whyte, Toronto, Ont., 2nd July, 1897.
9335. ROMANISM: POLITICAL AND RELIGIOUS. (Fourth Edition.) By Wm. R. Armstrong, Owen Sound, Ont., 2nd July, 1897.
9336. ART SUPPLEMENT OF THE MAIL AND EMPIRE, TORONTO, SATURDAY, 3RD JULY, 1897. The Mail Printing Company, Toronto, Ont., 3rd July, 1897.
9337. OFFICIAL TELEPHONE DIRECTORY, DISTRICT OF SOUTHERN QUEBEC, JUNE, 1897. The Bell Telephone Company of Canada (Ltd.), Montreal, Que., 3rd July, 1897.
9338. BOOK-KEEPING BLANK FOR COMMERCIAL DIPLOMA, No. 13. (Complete with Notes.) Prepared by J. A. Wismer, M.A. The Copp, Clark Company (Ltd.), Toronto, Ont., 6th July, 1897.
9339. SONG STORIES. (A Choice Collection of New Songs, Hymns and Anthems.) Edited by Jacob Andrew Henry. Whaley, Royce & Co., Toronto, Ont., 8th July, 1897.
9340. MAP OF THE CITY OF MONTREAL. Charles Edward Goad, Montreal, Que., 8th July, 1897.
9341. THE CIRCUIT GUIDE—AUTUMN ASSIZES, 1897. By George Allan Kingston, Toronto, Ont., 8th July, 1897.
9342. THE OPEN VIEW BOOKFINDER. Wm. Briggs (Book-Steward of the Methodist Book and Publishing House), Toronto, Ont., 9th July, 1897.
9343. WEST KOOTENAY, CENTRAL DIVISION. (Sheet No. 3, "The Province" Series of Mining Maps of British Columbia.) The Province Publishing Company (Ltd.), Victoria, B.C., 9th July, 1897.
9344. AINSWORTH MINING CAMP, WEST KOOTENAY, BRITISH COLUMBIA. (Supplement to Sheet No. 3, "The Province" Series of Mining Maps of British Columbia.) The Province Publishing Company (Ltd.), Victoria, B.C., 9th July, 1897.
9345. SLOCAN MINING CAMP, WEST KOOTENAY, BRITISH COLUMBIA. (Supplement to Sheet No. 3, "The Province" Series of Mining Maps of British Columbia.) The Province Publishing Company (Ltd.), Victoria, B.C., 9th July, 1897.
9346. PHOTOGRAPHIE DE MGR. PAUL BRUCHÉSI, ARCHEVEQUE DE MONTRÉAL. L. E. Desmarais et Cie, Montréal, Qué. 9 juillet 1897.
9347. ART SUPPLEMENT OF THE MAIL AND EMPIRE, TORONTO, SATURDAY, 10TH JULY, 1897. The Mail Printing Company, Toronto, Ont., 10th July, 1897.
9348. A SHORT HISTORY OF ANNAPOLES ROYAL. By W. M. MacVicar, A.M. The Copp, Clark Company (Ltd.), Toronto, Ont., 10th July, 1897.
9349. LITTLE PEOPLES SEAT WORK No. 1. For Second Grade. Arranged by M. Nimmons. The Copp, Clark Company (Ltd.), Toronto, Ont., 10th July, 1897.
9350. MONTREAL LABOUR DIRECTORY. Redmond Keys, Montreal, Que., 10th July, 1897.
9351. THE COMMANDMENT NUMBER CARDS. George Bengough, Toronto, Ont., 12th July, 1897.
9352. ILLUSTRATED LONDON, ONTARIO, CANADA. The London Printing and Lithographing Company (Ltd.), London, Ont., 12th July, 1897.
9353. PROCLAMATION: UNIVERSAL BROTHERHOOD IN CHRIST, THE ONE CHURCH, THE ARREST OF EVIL. By Ira Mabee Messenger, Simcoe, Ont., 12th July, 1897.
9354. ENGLISH GRAMMAR FOR BEGINNERS. By Alfred S. West, M.A. The Copp, Clark Company (Ltd.), Toronto, Ont., 12th July, 1897.

9355. WE ARE BRITONS STILL. (Patriotic Song.) Words by David Moore. Music by R. S. Ambrose. Whaley, Royce & Co., Toronto, Ont., 12th July, 1897.
9356. GOD WHO MADEST EARTH AND HEAVEN. (Anthem.) Unaccompanied Quartette. Wm. Shannon, Montreal, Que., 13th July, 1897.
9357. THE DELINEATOR. (A Journal of Fashion, Culture and Fine Arts, August, 1897.) The Butterick Publishing Company (Ltd.), New York, N. Y., U.S.A., 13th July, 1897.
9358. THE GLASS OF FASHION UP TO DATE. (August, 1897.) The Butterick Publishing Company (Ltd.), New York, N. Y., U.S.A., 13th July, 1897.
9359. CAMP AND LAMP. Rambles in Realms of Sport, Story, Song. By Samuel Mathewson Baylis, Montreal, Que., 13th July, 1897.
9360. POETICALLEISURE HOURS AND TORONTONIAN DESCRIPTIONS. By Emile Coulon, Toronto, Ont., 13th July, 1897.
9361. TERESITA WALTZ. By M. Rosalind Harrison, Guelph, Ont., 13th July, 1897.
9362. SEXTON'S OMNIMETRE. (Pocket Edition.) Thaddeus Norris, Washington, D.C., U.S.A., 14th July, 1897.
9363. THE BUSINESS GUIDE; OR, SAFE METHODS OF BUSINESS. By J. E. Hansford, LL.B. J. L. Nichols & Co., Toronto, Ont., 14th July, 1897.
9364. BETH WOODBURN. By Maud Pettit. William Briggs (Book-Steward of the Methodist Book and Publishing House), Toronto, Ont., 15th July, 1897.
9365. THE JUNIOR LEAGUE HAND-BOOK. (Devoted to Junior League Methods of Work.) Compiled, arranged and written by Rev. S. T. Bartlett. William Briggs (Book-Steward of the Methodist Book and Publishing House), Toronto, Ont., 15th July, 1897.
9366. THE SELKIRK SETTLERS IN REAL LIFE. By Rev. R. G. MacBeth, M.A. William Briggs (Book-Steward of the Methodist Book and Publishing House), Toronto, Ont., 15th July, 1897.
9367. EVEQUES DE LA PROVINCE DE QUÉBEC. (Photographie.) Joseph Arthur Magnan, Montréal, Qué., 15 juillet 1897.
9368. SHEELA. (Irish Ballad. With Waltz Refrain.) Words and Music by R. A. Brennan, Toronto, Ont., 16th July, 1897.
9369. THE DEBRISAY ANALYTICAL FRENCH METHOD. (Part IV.) Charles T. DeBrisay, Toronto, Ont., 16th July, 1897.
9370. THE WESTMINSTER. (A Paper for the Home. Vol. III, No. 1, July, 1897.) The Westminster Company, Toronto, Ont., 16th July, 1897.
9371. ART SUPPLEMENT OF THE MAIL AND EMPIRE, TORONTO, SATURDAY, 17TH JULY, 1897. The Mail Printing Company, Toronto, Ont., 17th July, 1897.
9372. SONG OF THE BLACKSMITH. Words and Music by Edward H. Capp. Whaley, Royce & Co., Toronto, Ont., 17th July, 1897.
9373. THE FLAG OF OLD ENGLAND. Words and Music by Dr. W. Carden Cousens, Ottawa, Ont., 17th July, 1897.
9374. LE DROIT CIVIL CANADIEN. (Tome Troisième.) Camille Theoret, Montréal, Qué., 20 juillet 1897.
9375. FOSTER'S VEST POCKET GUIDE MAP OF TORONTO, 1897. J. G. Foster & Co., Toronto, Ont., 20th July, 1897.
9376. STAG ISLAND MARCH. (Two-Step.) By Stewart H. Vint, Sarnia, Ont., 20th July, 1897.
9377. PROSPECTORS' MAP OF PORTION OF DISTRICT OF EAST KOOTENAY, BRITISH COLUMBIA. Compiled by Frank C. Lang, Golden, B.C., 20th July, 1897.
9378. I'VE BEEN FAITHFUL TO YOU. Words and Music by Chas. K. Harris. Arranged by Joseph Clauder. Whaley, Royce & Co., Toronto, Ont., 21st July, 1897.
9379. THE ORGAN GRINDER'S SERENADE. Words and Music by Chas. K. Harris. Arranged by Joseph Clauder. Whaley, Royce & Co., Toronto, Ont., 21st July, 1897.
9380. THE PRESBYTERIAN BOOK OF PRAISE. Rev. Wm. Gregg, D.D., and Wm. Barclay McMurrich, M.A., Q.C., Toronto, Ont., and Rev. John Jenkins, D.D., LL.D., London, England, 21st July, 1897.

9381. **WHEN GEORGE THE THIRD WAS KING.** (An Historical Drama in Three Acts.) By Catharine Nina Merritt, Toronto, Ont., 21st July, 1897.
9382. **CUTHBERT'S ARITHMETIC EXERCISE BOOK No. 6.** (For use in Fourth Book and Entrance Classes.) The Copp, Clark Company (Ltd.), London, Ont., 22nd July, 1897.
9383. **THE MARTIAN.** (A Novel.) By George du Maurier. (With Illustrations by the Author.) Harper & Brothers, New York, N.Y., U.S.A., 22nd July, 1897.
9384. **THE COLLINS COUPON BOOK.** O. E. Collins, Toronto, Ont., 26th July, 1897.
9385. **QUEEN OF THE WHEEL.** (Bicycle Song.) Words and Music by Gerald Deane. Whaley, Royce & Co., Toronto, Ont., 28th July, 1897.
9386. **LITTLE FOLKS DRAWING BOOK No. 1.** For Seat Work. Arranged by B. Savage. The Copp, Clark Company (Ltd.), Toronto, Ont., 28th July, 1897.
9387. **OFFICIAL TELEPHONE DIRECTORY, DISTRICT OF NORTHERN QUEBEC, JULY, 1897.** The Bell Telephone Company of Canada (Ltd.), Montreal, Que., 29th July, 1897.