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# The Canadian Patent Office

## RECORD



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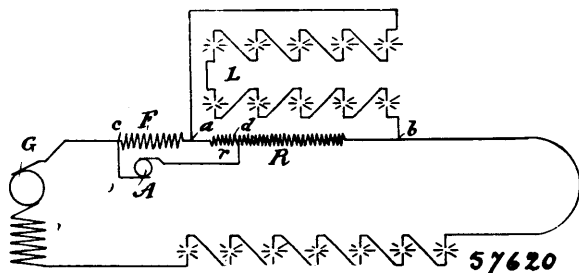
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### INVENTIONS PATENTED.

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#### No. 57,620. Electric Meter. (*Electromètre.*)

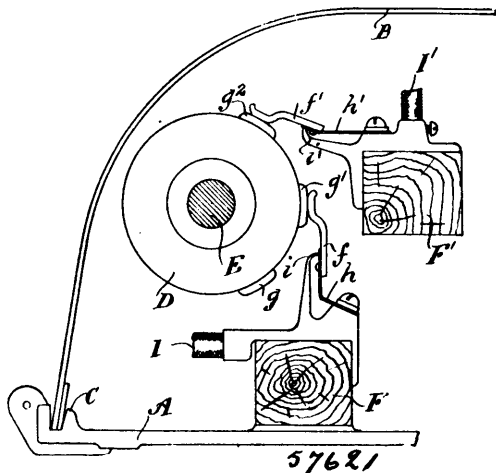


The Canadian General Electric Co., Toronto, Ontario, Canada, assignee of Frank P. Cox, Lynn, Massachusetts, U.S.A., 1st October, 1897; 6 years. (Filed 8th July, 1896.)

*Claim.*—1st. The combination of a constant current circuit, with a meter motor having a field winding in the main line, and its armature shunting the field through a resistance, so graduated in amount as to give a starting torque sufficient to overcome friction. 2nd. The combination of a constant current circuit, having a resistance in shunt to the translating devices, or any desired portion of them, and a meter with a stationary inducing winding in the main line, and an armature winding shunting the inducing winding and connected at one terminal to an intermediate point in the resistance. 3rd. The combination of a constant current circuit with a meter motor coupled in circuit, with the field winding and translating devices forming one side of a Wheatstone bridge, the armature and a resistance the second side of the bridge, and a resistance corresponding to the bridge wire adjusted to give a starting torque to the motor, as set forth. 4th. The combination of a constant current circuit, with a meter motor having a main field winding in the main line, an armature shunting the field winding and the translating devices through a resistance, and an auxiliary field winding wound so as to enhance the starting torque of the motor, and connected between the main field winding and the translating devices as set forth. 5th. The method of operating an electric meter, consisting in establishing an initial starting torque for overcoming the friction of the moving element of the meter and gradually diminishing, or removing, said torque as the load comes on. 6th. The method of operating an electric meter, consisting in establishing, besides the normal operating torque of the meter, an extra torque for overcoming the friction of the moving element thereof under

light load conditions, removing said compensating torque, and afterward establishing a torque opposing the motion of the moving element of the meter.

#### No. 57,621. Motor Reversing Switch. (*Moteur à aiguille de reuversement.*)

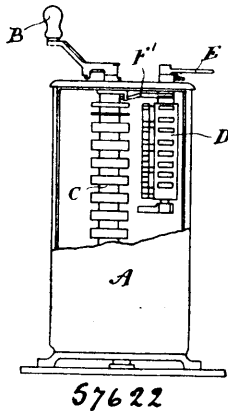


The Canadian General Electric Co., Toronto, Ontario, Canada, assignee of Frank E. Case, Schenectady, New York, U.S.A., 1st October, 1897; 6 years. (Filed 8th July, 1896.)

*Claim.*—1st. The combination in a reversing switch, of a row of contacts adapted to be connected to line in either position of the switch, and two or more rows of contacts and brushes, each one leading to and adapted to reverse one or more motors. 2nd. As an article of manufacture, a four motor reversing switch cylinder having three rows of contacts, the middle row being cross-connected relative to each other, the other contacts being wide enough to engage with two brushes, the middle contacts with one. 3rd. In a four motor reversing switch, the combination of three rows of contacts mounted on a cylinder, with two sets of brushes, one set leading to one pair of motors, and the second set to the second pair of motors, engaging with the contacts, one row of contacts being common to both sets of brushes. 4th. In a four motor reversing switch, the combination of the three rows of contacts mounted on a cylinder, with two sets of brushes making contact therewith, the middle and one set of outer contacts being connected so as to cause the motors to revolve in one direction, and the middle and remaining outer contacts causing them to revolve in the opposite direction. 5th. In a four motor reversing switch, the combination of three rows contacts mounted on a cylinder, two sets of brushes engaging therewith, the outer contacts engaging with two brushes, the inner contacts with one, the inner contacts being arranged in an upper and lower series, each series consisting of pairs of contacts cross-connected, the said series of contacts being common to both sets of brushes. 6th. In a four motor reversing switch, with the motors connected in pairs, the combination of three rows of contacts, brushes making contact therewith, the inner contacts being arranged in an upper and lower series, the contacts in the series being arranged to

form pairs, the leads from two of the motors which form a pair going to the lower series, and those from the remaining pair going to the upper series.

**No. 57,622. Safety Appliance for Electric Cars.**  
(Appareil de surt  t   pour chars   lectriques.)



The Canadian General Electric Company, Toronto, Ontario, Canada, assignee of William B. Potter, Schenectady, New York, U.S.A., 1st October, 1897; 6 years. (Filed 8th July, 1896.)

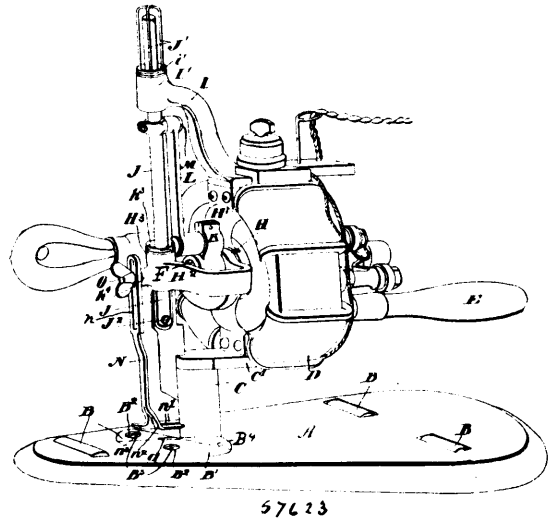
*Claim.*—1st. In an electrically propelled vehicle, a controller, and a cylindrical switch therein provided with four series of contacts, two of such series designed for the normal operation of the motors in running forward or backward, and the other two series arranged respectively to connect the motors each in an independent short circuit, the one series when running forward, the other when running backward. 2nd. In an electrically propelled vehicle, a controller, a plurality of motors operating the vehicle, and a switch in the controller provided with contacts and connections adapted to reverse the relation of armature and field in the motors and to throw them upon independent short circuits, in whichever direction the vehicle may be moving. 3rd. In an electrically propelled vehicle, a controller, one or more motors operating the vehicle, a switch co-operating with the controllers and adapted in its normal positions to determine the direction of motion of the vehicle, contacts upon the switch arranged to connect the motors each in an independent short circuit, the contacts being arranged in two series, one designed to operate in the forward motion of the car, the other in its backward motion, and interlocking means between the controller and the switch, whereby the controller is free to move when the switch is in one or the other of its normal positions, and is locked against motion in its other positions. 4th. In an electrically propelled vehicle, an auxiliary switch designed to act as a reversing-switch in its normal operation, two series of contacts other than the reversing-switch contacts carried thereon, such contacts adapted to short-circuit the motors upon a local circuit to act as an emergency stop, a handle for the auxiliary switch, and locking means for the handle so arranged that the handle may be thrown to the end of its stroke in either direction, but will be locked against accidental displacement after being thrown.

**No. 57,623. Cloth Cutting Machine.**  
(Machine    couper le drap.)

George Peter Eastman, Toronto, Ontario, Canada, 1st October, 1897; 6 years. (Filed 1st August, 1896.)

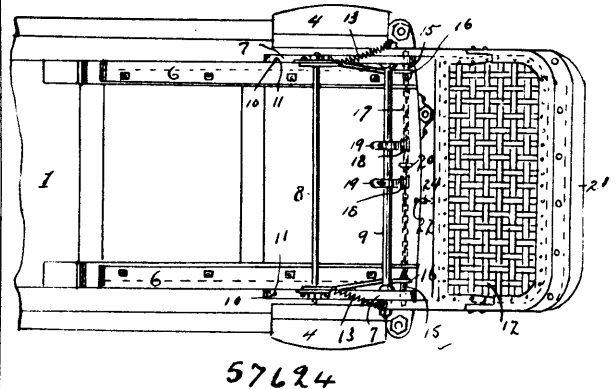
*Claim.*—1st. In a cloth cutting machine, the combination with the base and stem extending upwardly therefrom and a suitable motor and guideways suitably supported, the armature shaft, suitable bearings therefor, crank on the outer end, connecting rod, knife rod and knife having a lower bevelled sharpened edge, a slot in the base into which such knife reciprocates and an adjustable guard secured at the top to the front of the lower guide for the knife rod and depending therefrom, said guard being provided at the bottom with lower wings extending on each side of the supporting stem, as and for the purpose specified. 2nd. In a cloth cutting machine, the combination with the base and stem extending upwardly therefrom and a suitable motor and guideways suitably supported, the armature shaft, suitable bearing therefor, crank on the outer end, connecting rod, knife rod and knife having a lower bevelled sharpened edge, a slot in the base into which such knife reciprocates, an adjustable slotted guard secured at the top to the front of the lower guide for the knife rod and depending therefrom, said guide being provided at the bottom with rear wings extending on each side of the supporting stem and a pointer extending forwardly from the guard and forming part of the same and the binding screw extending through the slot in said guard to hold said guard in position, as and for the purpose specified. 3rd. In a cloth

cutting machine, the combination with the base and stem extending upwardly therefrom, and a suitable motor and guideways suit-



ably supported, the armature shaft, suitable bearings therefor, a crank on the outer end, a connecting rod, a knife rod, and knife having a lower bevelled sharpened edge, a slot in the base into which said knife reciprocates, an adjustable guard secured at the top in front of the lower guide for the knife rod and provided at the bottom with a pointer extending forwardly from the guard and forming apart of the same and located entirely to one side of the cutting edge of the knife so as to leave a marked line on the cloth in clear view from the point to the cutting edge of the knife, substantially as described. 4th. In a machine of the class described in combination, the base, and stem, and magnet frame supported upon the stem front bearing secured to the front end of the field magnet frame and extending inwardly within the armature, the rear bearing also secured to the field magnet frame and extending outwardly from the fields, the armature shaft supported in the inwardly extending bearings and rear bearings, the cup-shaped armature secured at one end to the shaft and extending inwardly within the field immediately to the outside of the inwardly extending front bearings substantially as described.

**No. 57,624. Car Fender or Guard.**  
(Defense ou garde de chars.)

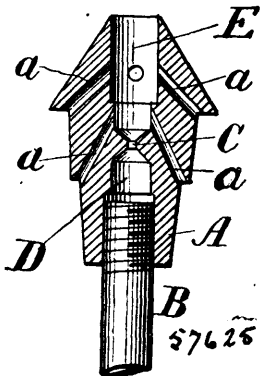


Charles H. Weeden, Jentland, Maine, U.S.A., 1st October, 1897; 6 years. (Filed 20th September, 1897.)

*Claim.*—1st. In a car fender or guard, guides 6, 6, on the underside of the car, a framework consisting of side pieces 7, 7, and connecting rods between the same, said framework movable forward and backward in said guides, a fender proper 12, pivoted to the side pieces 7, 7, springs 13, 13, attached to said fender and side pieces tending to hold the forward end of the fender against the track with a yielding pressure, spring pressed bolts 15, 15, carried by said framework and entering perforations in the fender to hold the fender raised from the track, a flexible connection 17 between said bolts, and a spring-pressed push-pin 20, projecting downward through the platform of the car, detached from said flexible connection but engaging it when said push-pin is pressed downward to withdraw the bolts 15, and allow the fender 12 to be moved downward upon the track, all combined for the purpose set forth. 2nd. In a car fender or guard, guides 6, 6, on the underside of the car, a

framework guided in said guides, and consisting of the side pieces 7, 7, and connecting rods between the same, pins 10, 10, to hold said framework in its forward position, a fender proper 12, pivotally attached to the side pieces of said framework, spring-pressed bolts 15, 15, carried on the framework and entering perforations in the fender to hold the fender in its raised position above the track, a yielding flexible connection 17, between the bolts 15, 15, and a push-pin 20, projecting through the platform of the car immediately above but detached from said flexible connection to withdraw said bolts when said pin is depressed, all combined to operate substantially as and for the purpose set forth.

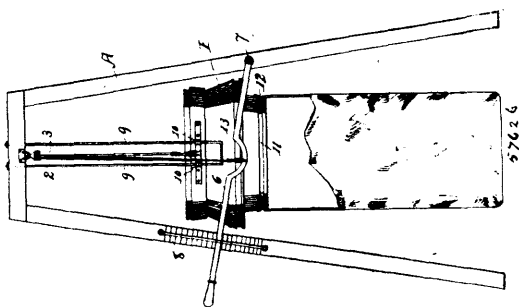
**No. 57,625. Acetylene Gas Burner.**  
(*Brûleur de gaz acétylène.*)



Edward James Dolan, Philadelphia, Pennsylvania, U.S.A., 1st October, 1897; 18 years. (Filed 31st August, 1897.)

*Claim.*—1st. The process of burning acetylene gas, which consists in projecting a small cylinder of gas, in surrounding the same with an envelope of air insufficient to cause combustion of all the gas, and in finally supplying the gas with an additional amount of oxygen by allowing the stream of gas to expand above the burner tip into contact with the air, thereby burning the same, substantially as described. 2nd. The process of burning acetylene gas, which consists in projecting toward each other two cylinders of acetylene gas, in surrounding the same with an envelope of air insufficient to produce combustion of all the gas, and in finally causing the cylinders of gas to impinge upon each other and produce a flat flame, substantially as described. 3rd. The combination in an acetylene burner of the block A, having the minute opening C, the cylindrical opening E, opening without obstruction to the atmosphere, and the air passages a, substantially as described. 4th. The combination in an acetylene burner of two mixing burners mounted upon a suitable standard and inclined toward each other, the said burners being each provided with an air-ejecting apparatus within the burner itself, substantially as described. 5th. The combination of the burners A, A, mounted upon a suitable support and inclined toward each other, each having within the single block constituting the burner the central minute cylindrical orifice C, the large unobstructed cylindrical opening E, and the inclined air-passages a, substantially as described.

**No. 57,626. Sack Holder.** (*Porte-sacs.*)

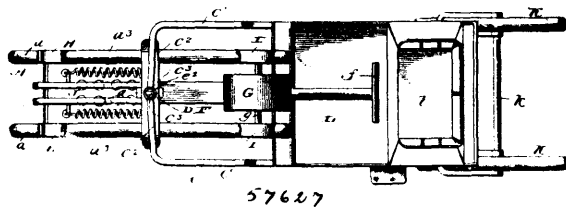


Emil Adam Wenzel and Franz Fuldeen Wenzel, both of St. Paul, Minnesota, U.S.A., 1st October, 1897; 6 years. (Filed 23rd September, 1897.)

*Claim.*—1st. In a bag-holder of the class described, the combination with the frame, of the hopper, its supporting cables, the connected lever for adjusting the height of the hopper, and the guide-rods depending from the top of the frame and working through guides on the sides of the hopper for preventing lateral movement of the same. 2nd. In a bag-holder of the class described, the combination with the frame, of the hopper, the cables supporting the same from the top of the frame, the connected adjusting lever, and the independ-

ent means for securing different sized sacks to the hopper. 3rd. In a bag-holder of the class described, the combination of the frame, of the hopper having cable support upon the same and formed with series of grooves proportioned to receive different sizes of sacks, the clamping rings for securing the edges of the sacks in said grooves, and the lever connected with the hopper supporting cables, by means of which the height of the hopper may be adjusted.

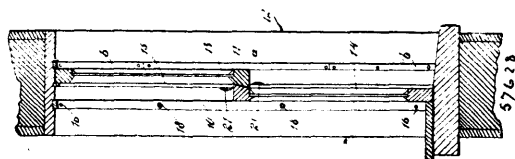
**No. 57,627. Motor Vehicle.** (*Voiture à moteur.*)



Charles Henry Barrows, Willimantic, Connecticut, U.S.A., 1st October, 1897; 6 years. (Filed 6th September, 1897.)

*Claim.*—1st. In a motor vehicle, the combination of a steering lever or handle, and a motor carried by said handle or lever and movable therewith into and out of engagement with a wheel, substantially as and for the purposes described. 2nd. In a motor vehicle, the combination with a steering lever, of a motor carried by said lever on one side of its fulcrum, and a brake device also carried by said lever but on the opposite side of its fulcrum from the motor, substantially as described. 3rd. In a motor vehicle, the combination with a steering fork, and a steering and driving-wheel, of a steering lever fulcrumed to said steering fork, a motor carried by said lever and movable therewith into and out of engagement with said wheel, and a brake device also carried by the steering lever to ride upon and be free from said wheel, substantially as and for the purposes described. 4th. In a motor vehicle, the combination with a steering and driving-wheel, and a steering lever, of a steering lever, a motor, and a brake mechanism, said motor and brake mechanism carried by the lever on opposite sides of its fulcrum and said parts movable with the steering lever to alternately ride upon said wheel, substantially as described. 5th. In a motor vehicle, the combination with a steering and driving-wheel, and a fork, of a steering lever hung on the fork, a motor carried by the steering lever, and mechanism to counterbalance with the weight of the motor on said steering lever, substantially as and for the purposes described. 6th. In a motor vehicle, the combination with a steering fork, of a duplex-wheel journaled on said fork, a steering lever hung to said fork, a motor carried by said steering lever, and wheels driven by the motor and arranged on the lever to be thrown into and out of engagement with said duplex-wheel by proper movements of said steering lever, substantially as described. 7th. In a motor vehicle, the combination with a steering fork, and a wheel, of a spindle or king-bolt passing through the head of said fork, a pendent rigid with the lever, a steering lever on said pendent, a motor carried by the lever, and a wheeled frame coupled to the spindle or king-bolt, substantially as described.

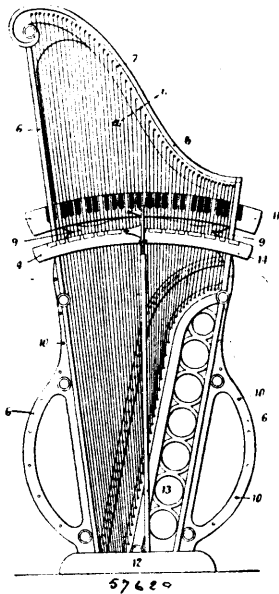
**No. 57,628. Sash Holder.** (*Arrête-croisée.*)



John Leash, Thomas William Leash, Herman Currie and Edward Lewis Brazenor, all of Gore Bay, Ontario, Canada, 1st October, 1897; 6 years. (Filed 24th June, 1897.)

*Claim.*—1st. The combination of a window-sash, and a flat plate having an edgewise spring, the plate co-acting with the sash to hold the same. 2nd. The combination of a window-frame, a window-sash moving therein, and a spring attached to one of said parts and having a resilient portion bearing against the other of said parts, whereby to hold the sash. 3rd. The combination of two spring-pressed sashes, and a plate having a convex face, the plate being interposed between the sashes to protect the same. 4th. The combination of a spring-pressed sash, and a plate having a convex face, the plate bearing against the sash to prevent the marring thereof. 5th. The combination of a spring-pressed sash, and a plate held adjacent to the sash and engaged thereby, whereby to prevent the sash from being marred. 6th. The combination of a window-sash, and a flat plate having an edgewise spring, the plate bearing its edge against the sash, whereby to hold the sash in place. 7th. The combination of a window-frame, a sash sliding therein, and a plate forming a window-bead, the plate being rigidly secured to the frame, and having an edgewise spring toward the window-sash, the edge of the plate bearing against the sash to hold the sash.

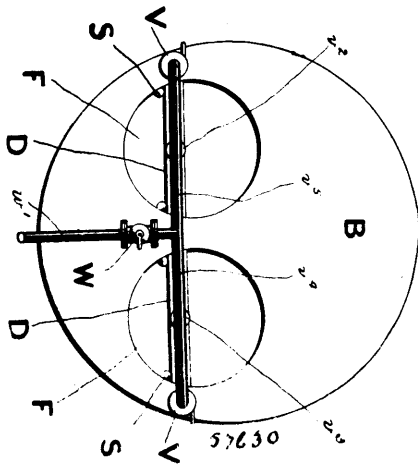
**No. 57,629. Musical Stringed Instrument.**  
(*Instrument de musique à cordes.*)



Henry Müller, Camberwell, London, England, 1st October, 1897; 6 years. (Filed 28th June, 1897.)

*Claim.*—In a musical stringed instrument as aforesaid, the combination of a metallic frame, of a form approximating to that of a harp, having wires or strings stretched thereupon, the frame being also fitted with a sounding-board; also a sliding scale-board, and a sliding board for operation with a picker stick, severally operating, substantially as hereinbefore described.

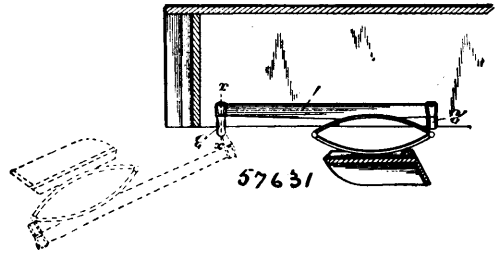
**No. 57,630. Grate for Steam Boilers.**  
(*Grilles pour chaudières à vapeur.*)



Alfred Davy and John Edey, London, England, 1st October, 1897; 6 years. (Filed 14th September, 1897.)

*Claim.*—1st. The improvements in grates for steam boilers or for furnaces in conjunction with steam boilers or vessels consisting of a suspended or hollow bridge and dead plate with tubular or hollow bars mounted between the bridge and dead plate with provisions for the free movement of the dead plate or the bridge, and with communication through pipes at the front for the free circulation of the water through the arrangement, substantially as herein set forth and shown upon the accompanying drawings. 2nd. In circulating grates the use of circulating cocks or valves with their pipes and the blow-off cock or valve, as and for the purpose herein set forth and shown. 3rd. In circulating grates the mode of supporting the dead plate upon water studs or their equivalents, to allow for freedom of expansion and contraction in the bars. 4th. In circulating grates the mode of hanging the bridge with a flexible neck or its equivalent, substantially as and for the purpose set forth. 5th. The improvements in the grates for steam boilers, substantially as set forth and as shown upon the drawings.

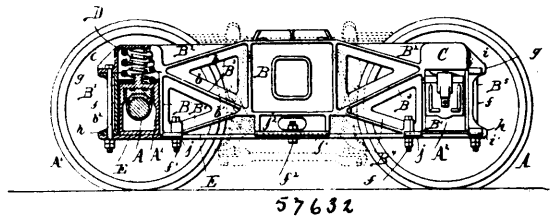
**No. 57,631. Wagon Seat.** (*Siège de wagon.*)



Elmer E. Wilson and Joseph W. Uncapher, both of Coffeyville Kansas, U.S.A., 1st October, 1897; 6 years. (Filed 17th September, 1897.)

*Claim.*—1st. In a device of the class described, the combination of a hanger provided at its top with a horizontal pivot arranged to extend over the upper edge of a wagon-body, a clamp provided at its top with an eye to receive the pivot and having depending sides for straddling the upper edge of a wagon-body, the outer side being provided with a threaded opening, a screw arranged in the threaded opening, provided with a ratchet and having a swivelled head or plate at its inner end to engage a wagon-body, and a pivoted pawl mounted on the clamp and engaging the ratchet, substantially as described. 2nd. In a device of the class described, the combination of a hanger provided at its top with a horizontal pivot, a clamp having depending sides and provided at its top with an eye receiving the said pivot, a screw mounted in a threaded opening of the outer side of the clamp and provided with longitudinal flutes or grooves forming a ratchet, and a pawl mounted on the clamp and engaging the ratchet of the screw, substantially as described.

**No. 57,632. Car Truck.** (*Chassis de chars.*)

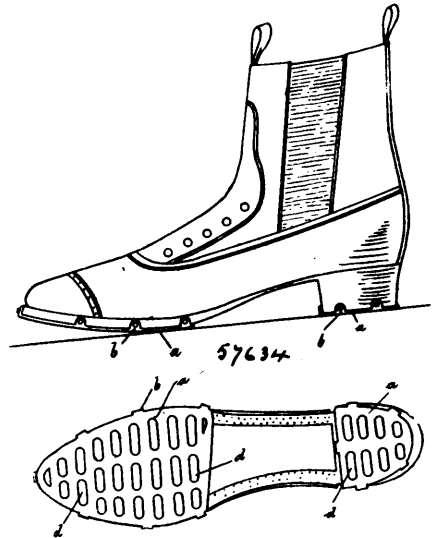


The Gould Coupler Company, assignee of Willard F. Richards, all of New York, State of New York, U.S.A., 1st October, 1897; 6 years. (Filed 17th September, 1897.)

*Claim.*—1st. A side frame for car trucks, formed of a single piece of cast metal and composed of a central portion or panel, upper inclined arch bars extending downwardly and outwardly from the upper portion of the panel, lower reversely inclined arch bars extending upwardly and outwardly from the lower portion of the panel, horizontal caps arranged at the outer ends of said arch bars, inner pedestal jaws extending downwardly from the outer meeting ends of said upper and lower arch bars, and auxiliary arch bars extending downwardly from the inner ends of said lower arch bars to the lower ends of said pedestal jaws, substantially as set forth. 2nd. A side frame for car trucks, composed of a central portion or panel, pedestals arranged at the ends of the frame, upper inclined arch bars extending from the upper portions of said central panel to the pedestals, lower reversely inclined arch bars extending from the lower portion of said central panel to the pedestals, horizontal caps arranged at the ends of the frame above said pedestals and adapted to receive the cushioning springs of the truck, and a tie bar connecting the lower ends of said pedestals, substantially as set forth. 3rd. In a car truck, the combination with a side frame formed of a single piece of cast metal and composed of a central portion or panel, pedestals arranged at the ends of the frame and upper and lower arch bars connecting the pedestals with said central panel and converging toward the pedestals, of a tie bar connecting the lower ends of the pedestals and provided at its ends with lips which overlap the lower ends of the pedestals, substantially as set forth. 4th. In a car truck, the combination with a side frame formed of a single piece of cast metal and composed of a central portion or panel, pedestals arranged at the ends of the frame and upper and lower arch bars connecting the pedestals with said central panel and converging toward the pedestals, of a tie bar connecting the lower ends of the pedestals, the side frame being provided at its lower edge with lateral lips which overlap the edges of the tie bar, substantially as set forth. 5th. In a car truck, the combination with a side frame formed of a single piece of cast metal, and composed of a central portion or panel, pedestals arranged at the ends of the frame and upper and lower arch bars connecting said central panel with said pedestals, said pedestals having removable outer jaws provided at their ends with lateral lips, of a tie bar connecting the lower ends of said pedestals, the lips of the removable pedestal jaws overlapping

the sides of the side frame and the edge of the tie bar, respectively, substantially as set forth. 6th. In a car truck, the combination with a side frame formed of a single piece of cast metal and composed of a central portion or panel, pedestals arranged at the ends of the frame and upper and lower arch bars connecting said central panel with said pedestals, said pedestals having removable outer jaws provided at their ends with lateral lips, of a tie bar connecting the lower ends of said pedestals and provided at its end with lips which overlap the lower ends of said removable pedestal jaws, the lips of said jaws overlapping the sides of the frame and the edges of the tie bar, and the frame being provided at its ends with lips which overlap the upper ends of said jaws, substantially as set forth. 7th. The combination with a pair of side frames each formed of a single piece of cast metal and composed of a central horizontal pocket or socket, pedestals arranged at the ends of the frame, upper inclined arch bars extending from the upper portion of said pocket to said pedestals and lower oppositely inclined arch bars extending from the lower portion of said pocket to the pedestals, of a transom having its ends seated in the central pockets of the side frames, substantially as set forth. 8th. The combination with a pair of side frames each formed of a single piece of cast metal and composed of a central horizontal pocket or socket, pedestals arranged at the ends of the frame, upper inclined arch bars extending from the upper portion of said pocket to said pedestals and lower oppositely inclined arch bars extending from the lower portion of said pocket to the pedestals, of a tie bar connecting the lower ends of said pedestals, and a cast metal transom having its ends seated in the central pockets of the side frames and secured therein, substantially as set forth. 9th. The combination with side frames of the truck, of a transom composed of a pair of parallel cast metal bars each having inwardly facing flanges and provided on opposite sides with oblique stiffening ribs extending from the middle thereof toward its end, substantially as set forth. 10th. The combination with the side frames of a truck, of a transom composed of a pair of parallel cast metal bars each provided at its upper edge with an inwardly facing flange provided at its middle with a widened portion or wing, said wings forming supports for the centre plate of the truck, substantially as set forth.

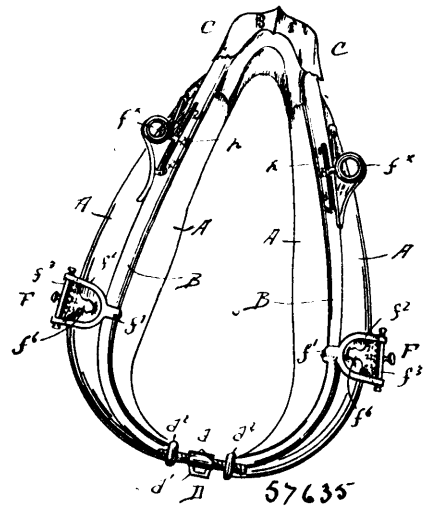
**No. 57,634. Sole and Heel Protector.**  
(*Protecteur de semelle et talon.*)



Richard Stachow, 42 Grabow St., Eberswalde, Prussia, 1st October, 1897; 6 years. (Filed 21st April, 1897.)

*Claim.*—1st. The protective devices for boots and shoes substantially as hereinbefore described and shown. 2nd. A device for protecting the soles and heels of boots and shoes, consisting of plates fixed by means of vertical fillets or lugs to the side surfaces of the sole or of the heel, said plates being composed of hard but elastic materials provided with any desired perforations, wart-like prominences, or being composed of woven wire fabric or the like in a frame, substantially as hereinbefore described and shown.

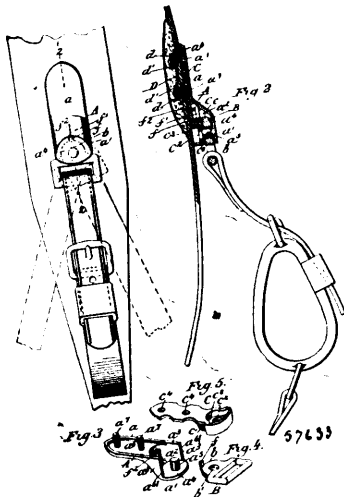
**No. 57,635. Horse Collar and Hame.**  
(*Collier et attelle.*)



Johannes Reimann, Union Hill, New Jersey, U.S.A., 1st October, 1897; 6 years. (Filed 21st September, 1897.)

*Claim.*—1st. The combination, with the collar portions and hame sections of a combined collar and hame, of slotted and interiorly toothed boxes attached to the hame sections and located in the upper ends of the collar portions, an extensible yoke provided with a cross-strap, guide rods hinged thereto and extending into the hame sections, means for setting the yoke higher or lower in the boxes, and means for clamping the yoke to or releasing it from said boxes, substantially as set forth. 2nd. The combination, with the collar portions and hame sections of a combined collar and hame, of

**No. 57,633. Harness Tug.** (*Boucleleau de harnais.*)

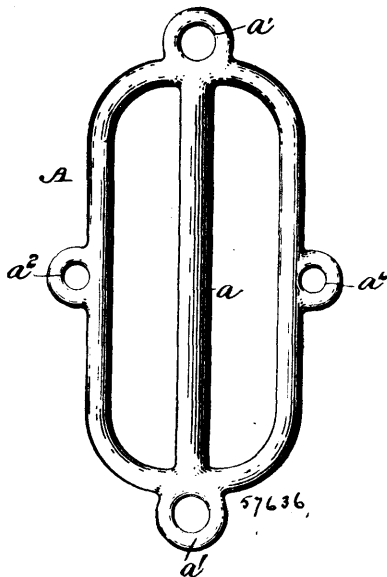


Alanson F. Dietz, Altamont, New York, U.S.A., 1st October, 1897; 6 years. (Filed 16th September, 1897.)

*Claim.*—1. In a harness tug, the combination of a casing having a socket formed therein, a pintle projecting from said casing into said socket, a strap plate pivoted on said pintle, and a means for holding said plate and casing together. 2nd. In a harness tug, the combination of a casing having a socket formed therein, a pintle projecting from said casing into said socket, a strap plate pivoted on said pintle, and a retaining plate covering said socket and holding said plate in place. 3rd. In a harness tug, the combination of a casing formed of a plate and cap, said plate and cap having recesses formed therein, a pintle projecting from the top of said cap into the recess formed in the said cap, a strap plate having a rounded portion adapted to fit in the recess formed in said cap and pivoted on said pintle, and a retaining plate adapted to cover the said recesses and to hold said strap plate in place. 4th. In a harness tug, the combination of a casing formed of a plate and cap, said plate and cap having recesses formed therein, a pintle projecting from the top of said cap into the recess formed in the said cap, a strap plate having a rounded portion adapted to fit in the recess formed in the cap and pivoted on said pintle, and a retaining plate adapted to cover said recesses and having a boss adapted to register with the recess formed in said cap and having an aperture therein adapted to engage with said pintle.

slotted and interiorly toothed boxes attached to the hame sections and located in the upper ends of the collar portions, an extensible yoke portion provided with a cross-strap, hinged and toothed straps extending into said sleeves, and clamping screws for locking said straps to or releasing them from the interiorly-toothed portions of the boxes, substantially as set forth. 3rd. The combination, with the collar portions and hame sections of a combined collar and hame, of adjustable draft-clips attached to the hame sections, such draft-clip being composed of U-shaped portion, a stationary bar at the rear end of said U-shaped portion, a sliding clip on said bar, and a toothed and pivoted locking plate engaging said sliding clip after the same is adjusted, substantially as set forth. 4th. The combination, with the collar portions and hame sections of a combined collar and hame, of adjustable draft-clips attached to the hame sections, each draft clip being provided with a U-shaped portion, a stationary bar passing through the rear end of the U-shaped portion, a friction-spring connecting the rear end of the U-shaped portion, a sliding clip provided with a stud for attaching the trace and a notch at its front end, and a locking plate pivoted to said U-shaped portion, and provided with teeth adjacent to the sliding-clip, so as to engage the notched end of the slip after the same has been adjusted on the bar and lock the same in the required position, substantially as set forth.

**No. 57,636. Fire Escape. (Sauveteur d'incendie.)**



George H. Howland, Northville, New York, U.S.A., 1st October, 1897; 6 years. (Filed 21st September, 1897.)

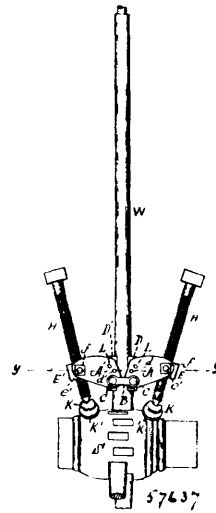
*Claim.*—1st. A friction loop for a fire-escape, constructed preferably of metal, having an open frame or body portion, a vertically arranged bar extending through the open body portion around which a lowering rope is adapted to be twisted, eyes at the top and bottom of the body portion through which the lowering rope is adapted to pass, and eyes on the sides of the body portion to which a supporting rope or band is adapted to be attached, substantially as described. 2nd. A fire-escape, comprising in its construction a friction loop, constructed preferably of metal, having an open frame or body portion, a vertically arranged bar extending through the open body portion around which a lowering rope is twisted, eyes at the top and bottom of the body portion through which the lowering rope passes, and eyes on the sides of the body portion to which a supporting rope or band is attached, substantially as described.

**No. 57,637. Device for Removing Spokes from Wheels. (Appareil pour enlever les rais des roues.)**

George A. Golar, Milton, Massachusetts, U.S.A., 1st October, 1897; 6 years. (Filed 22nd September, 1897.)

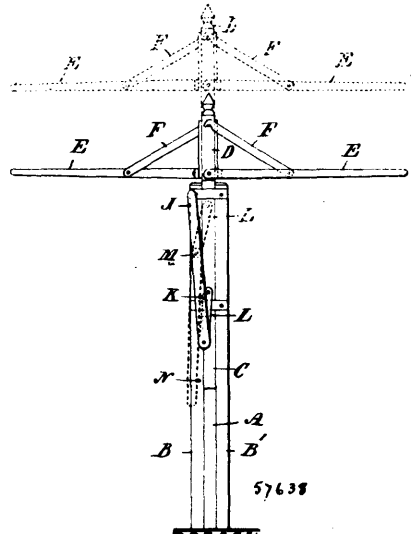
*Claim.*—1st. A device for removing spokes from hubs of wheels, comprising the two pairs of plates, A, A', the clamps D, D', the former being pivotally secured to and between the plates A and the latter similarly secured to and between the plates A'; links pivotally connecting each of the pairs of plates A with the pair of plates A'; internally screw-threaded tubular connections secured to and between the plates A and the plates A' near their outer ends; and screws extending through said tubular connection and provided with suitable feet adapted to bear against the hub, substantially as described. 2nd. The herein described device for removing spokes from the hubs of wheels, comprising the two pairs of plates A, A'; the clamps D, D'; the former pivotally secured to and between the plates A, and the latter similarly secured to and between the

plates A'; the links B connecting each plate A with its opposite plate A'; the internally screw-threaded tubes E, E', pivotally hung



between and secured to the plates A and the plates A' near their outer ends; the screws H extending through said threaded tubes; and the feet K connected with the lower ends of said screws in such a manner as to enable said feet to accommodate themselves to the surface of the hub, substantially as set forth.

**No. 57,638. Clothes Dryer. (Sechoir à linge.)**



William J. Coulter, Chesley, Ontario, Canada, 1st October, 1897. 6 years. (Filed 22nd September, 1897.)

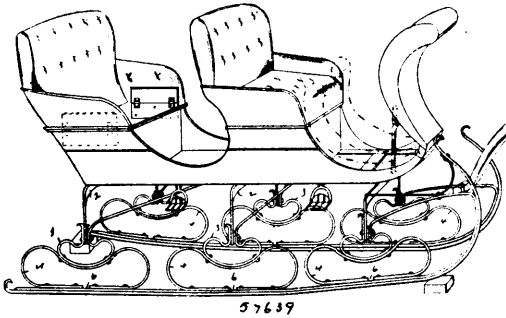
*Claim.*—1st. The combination with the post A, side posts B, B', and intervening sliding post C, of the compound levers J, L, arranged and operating as set forth. 2nd. The combination with the posts A, and B, B', bolted together, of the intermediate sliding post C, having a rotating head D, and connected by an axial pin G, and pipe bushing H, as set forth.

**No. 57,639. Sleigh. (Traineau.)**

James N. Rumions, Cokato, Minnesota, U.S.A., 1st October, 1897; 6 years. (Filed 23rd September, 1897.)

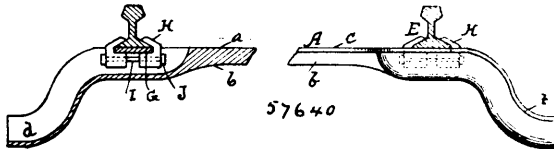
*Claim.*—1st. The combination with the sleigh body, the knees, and the flexible runners, of the loop springs interposed between said knees and runners, the portion of said springs connected with the runners being formed with a joint allowing berding of the runner alone at that point. 2nd. In a sleigh, the combination with the spring runner, the knee, the oscillating connection between the

same, and the interposed friction rolls serving as a bearing for said knee. 3rd. In a sleigh, the combination with the spring



runner, the knee, the saddle for said knee secured to said spring runner, the oscillating connection between said saddle and knee, and the interposed friction rolls. 4th. The combination with the cutter and its shafts, of the adjustable connections between the same adapted to hold said shafts in alignment with the runners when in normal position, and to permit said shafts to be laterally adjustable offset, and when so offset to be turned at an angle with the line of the runners proportionate to the degree of lateral adjustment. 5th. The combination with the cutter and its shafts, of the adjacent cross bar upon each, one of which is forwardly convexed, and the clips for adjustably connecting said cross bars, whereby when the shafts are in normal position, their line of draft is coincident with the medial line of the cutter, but when offset laterally they are outturned at an angle with said medial line, in proportion to the curvature of said bar and the degree of lateral adjustment.

**No. 57,640. Railway Tie. (Traverse de chemin de fer.)**

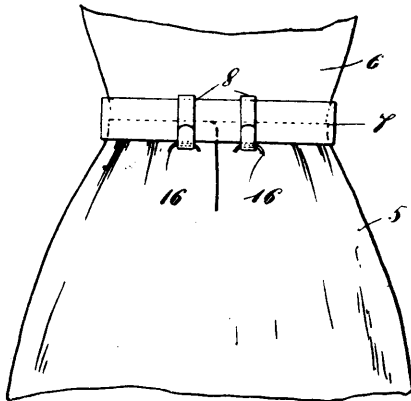


George F. Key, Ann Arbor, Michigan, U.S.A., 1st October, 1897; 6 years. (Filed 23rd September, 1897.)

*Claim.*—1st. A metallic railway tie consisting of a central connecting portion and end-rail-supporting portions of flat flanges or plates on the edges thereof, a central depressed trough-shaped portion between, and a rail supporting bridge joining the plates intermediate the trough, substantially as described. 3rd. A metallic railway tie consisting of a central connecting portion, end rail supports, horizontal at their inner ends, and downwardly and outwardly curved at their outer ends, comprising flat side plates, an intermediate depressed trough-shaped portion, and a rail-supporting bridge between the side plates, substantially as described. 3rd. The combination with the central connecting-section, having a top flat plate and a depending central rib, of end rail supports formed by a widening of the plate, such widened ends being curved downwardly and comprising the side plates, an intermediate trough and a bridge connecting the side plates, the end of the web of the connecting portion merging into the end of the trough portion, the whole being formed integral, substantially as described.

**No. 57,641. Skirt Support and Belt Fastener. (Support de jupe et attache de ceinture.)**

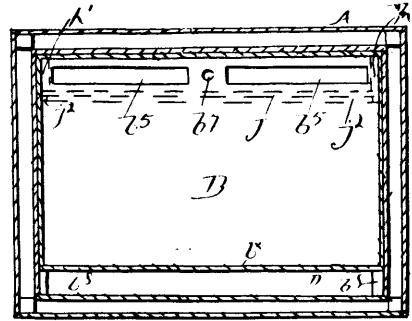
(Support de jupe et attache de ceinture.)



Blanche W. Emory, Cazenoria, New York, U.S.A., 1st October, 1897; 6 years. (Filed 22nd September, 1897.)

*Claim.*—1st. A skirt support and belt fastener constructed as herein described, and consisting of a long loop which opens downwardly, and one side of which is longer than the other, and bent upwardly to form a supplemental loop, substantially as described. 2nd. A skirt support and belt fastener constructed as herein described, and consisting of a long loop, which opens downwardly, and one side of which is longer than the other, and bent upwardly to form a supplemental loop, said supplemental loop being adapted to engage with a catch or fastening device secured to the skirt, substantially as shown and described.

**No. 57,642. Refrigerator. (Refrigerateur.)**



George J. Smith and Stillman M. Atherton, both of Burlington, Vermont, U.S.A., 1st October, 1897; 6 years. (Filed 22nd September, 1897.)

*Claim.*—1st. The combination with a refrigerator-casing and an ice-tank therein, of a flanged shield plate or tray fitted tightly to the bottom of said tank to form a space or chamber which is closed at all points except to the passage of cold air from the tank, a cold-air flue, and parts which establish communication through said closed space or chamber between the ice-tank and the cold-air flue, as and for the purposes described. 2nd. The combination with a refrigerator-casing, of an ice-tank fitted removably in said casing and provided near its lower part with cold-air-egress ports, a flanged shield plate or tray fitted tightly against the bottom of said ice-tank to form a space or chamber between itself and the tank, which space or chamber is closed all around except to the passage of air from the egress-ports of the tank, and the rear flange or wall of said tray provided with cold-air-egress ports, and a back flue-plate removably fastened to the casing, in the provision-chamber thereof, close up to the shield-plate, and forming with said casing a cold-air flue which communicates at its upper end with the cold-air-egress ports from the shield tray or plate, as and for the purposes described. 3rd. In a cleanable refrigerator, the combination with a casing, and an ice-tank having cold-air-egress ports in its bottom, of a drip-pan fitted closely to the bottom of said tank and provided with a perforated flange and with a baffle-plate, and a cold-air flue in the provision-chamber of said casing and connected through the perforated tray-flange with the ice-tank, as and for the purposes described. 4th. In a cleanable refrigerator, the combination with a casing of an ice-tank having cold-air ports in its bottom and a short waste connection, a drip-pan or tray provided with a perforated flange and with an inclined baffle-plate arranged close to the bottom of said tank to deflect drip-water and moisture into said tray without interfering with the circulation of cold-air from the ice-tank through the ports of the tray-flange, and a flue-plate fitted close to the bottom of the tray and adjacent to a wall of the casing to form a cold-air flue, as and for the purposes described. 5th. In a cleanable refrigerator, the combination with a casing having an ice-chamber, of a pair of cleats or posts adjacent to said chamber, a flue having off-standing flanges arranged to fit between said posts and said flanges provided with slots which open through the edges thereof, and studs or pins fixed to said posts and adapted to enter the slots in the flanges to draw the flue-plate close to the posts, as and for the purposes described. 6th. In a cleanable refrigerator, the combination with a casing open at its front end and having a permanent rail and a recess, an open front tank having a recessed seat in the bottom thereof, a removable locking-rail adapted to the permanent rail and the tank-seat, a drip-pan or tray, and a removable flue-plate attached within the provision-chamber and forming a cold-air flue that connects through the trap with the ice-tank chamber, as set forth.

**No. 57,643. Sled Boat. (Vaisseau à patin.)**

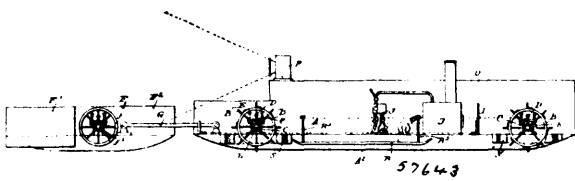
Gerard C. Scott, Lima, Ohio, U.S.A., 1st October, 1897; 6 years. (Filed 21st September, 1897.)

*Claim.*—1st. In a sled-boat, the combination of the body provided with self-propelling mechanism, substantially as described; with the pilot pivotally connected to the front end of the body, and mechanism for turning the pilot relatively to the body, for the purpose and substantially as described. 2nd. In a sled-boat, the com-



bination of the body and the propelling mechanism thereof, with the pilot pivotally connected to one end of the body, and the steer-

adapted to fit tightly about the tube or flue and prevent the products of combustion from the lamp from being forced back into the



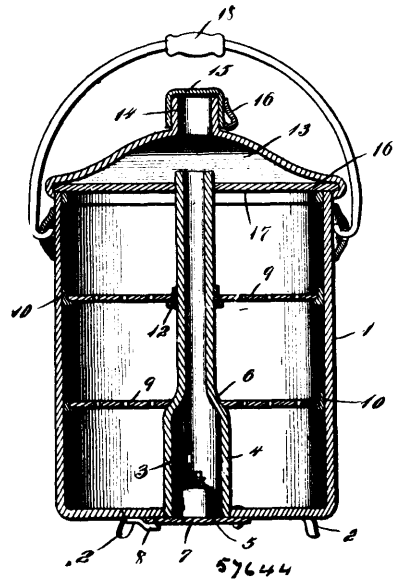
ing chains attached to the pilot and to a steering mechanism on the body, for the purpose and substantially as described. 3rd. In a sled-boat, the combination of the buoyant body having longitudinal depending, hollow runners at its sides, with the vertically-adjustable, spring-cushioned shafts arranged transversely of the body, the propelling wheels on said shafts exterior to the body, the engine, and the gearing between said engine-shafts and the propelling wheel-shafts, substantially as described. 4th. The herein-described sled-boat, adapted for travel on water, land, ice, etc., comprising a hollow, steel body formed with a longitudinal channel in its bottom, and longitudinal, hollow runners on its sides, and means for propelling said vessel, substantially as described. 5th. The combination, with the buoyant body having hollow runners, substantially as described, the transverse shafts mounted in spring-pressed journal-boxes, and means for vertically adjusting said shafts in said boxes; with the wheels attached to the outer ends of said shafts provided with detachable blades, all so arranged that the wheels can be caused to uphold the body upon land, or provided with blades and raised so as to propel the body through water or upon the runners, substantially as and for the purpose set forth. 6th. The combination of the body having longitudinal, depending, hollow runners, transverse shafts carrying wheels on their ends exterior to the body, an engine, and mechanism, substantially as described, for driving said shafts and wheels; with the buoyant pilot pivotally connected to the front end of the body, and mechanism, substantially as described, for turning said pilot, substantially as and for the purpose set forth. 7th. The combination of the hollow, buoyant body having a longitudinal channel in its bottom, and hollow runners at each side of said channel; transverse shafts journaled in spring-pressed vertically-adjustable journal-boxes; propeller wheels on the outer ends of said shafts, an engine, and sprocket-chains and gears for driving said propeller-wheel shafts from the engine-shaft, all substantially as described. 8th. The herein-described sled-boat, adapted for travel on water, land, ice, etc., comprising a hollow steel body formed with a longitudinal channel in its bottom, and longitudinal hollow runners on its sides, and means for propelling said vessel, with a hollow, buoyant pilot in front of the body, the bar pivotally connecting the pilot to the body, and the crossed steering chain connecting the pilot to the steering gear on the body, all substantially as described. 9th. The combination of the hollow, buoyant body, having a longitudinal channel in its bottom, and hollow runners at each side of said channel; transverse shafts journaled in spring-pressed, vertically-adjustable journal-boxes; propeller wheels on the outer ends of said shafts, an engine, and sprocket-chains and gears for driving said propeller-wheel shafts from the engine-shaft, with a hollow, buoyant pilot in front of the body, the bar pivotally connecting the pilot to the body, and the crossed steering-chain connecting the pilot to the steering gear on the body, all substantially as described. 10th. In a sled-boat, the combination of the body with the automatic guards attached thereto, and adapted to prevent upsetting thereof, for the purpose and substantially as described. 11th. In a sled-boat, the combination of the body provided with self-propelling mechanism, substantially as described, with the swinging guards suspended from the sides of the body and adapted to automatically swing outward to prevent upsetting thereof, for the purpose and substantially as described.

**No. 57,644. Dinner Kettle.**

(Chaudière garde-manger pour ouvriers.)

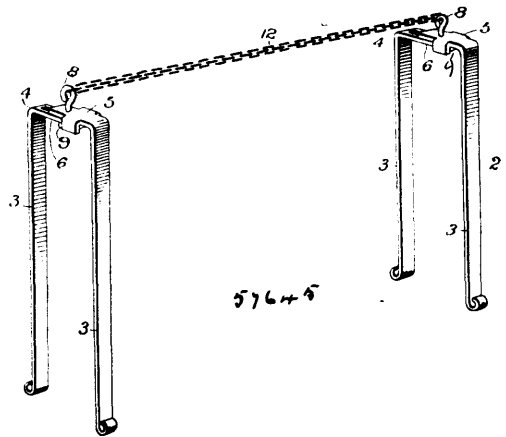
William MacCallum, Magog, Quebec, Canada, 1st October, 1897; 6 years. (Filed 23rd September, 1897.)

*Claim.*—1st. In a dinner pail, the combination of a pail provided with a funnel-shaped tube or flue having an enlarged bottom end and a top contracted end having shoulders formed at their intersections, and a series of perforated supporting plates contained within the pail and resting upon flanges on said tube and side walls of the pail, the lowermost one of said plates resting upon the said shoulders of the flue or tube, substantially as described. 2nd. In a dinner pail, the combination of a pail having a tube or flue extending therethrough and adapted to contain a lamp or other heating medium, a cover closing the said pail and provided with an opening for passage of the products of combustion from the lamp to the atmosphere, and an auxiliary cover below the said top cover and



pail, and a series of supporting plates within the pail and supported upon said tube, substantially as described.

**No. 57,645. Book Holder. (Porte-livres.)**



Mary E. Spielman, Alma, Kansas, U.S.A., 1st October, 1897; 6 years. (Filed 23rd September, 1897.)

*Claim.*—1st. In a book clasp or holder, the parallel elastic arms provided with the shank extensions arranged at right angles to the elastic arms, in combination with means for effecting the adjustment of said arms, substantially as described. 2nd. In a book clasp or holder, the parallel elastic arms provided with diverging points and with angular shank extensions, in combination with means for adjusting said extensions one upon the other, substantially as described. 3rd. In a book holder, the two clasps having each a pair of elastic parallel arms, in combination with a flexible connection between said clasps, for the purpose and substantially as described.

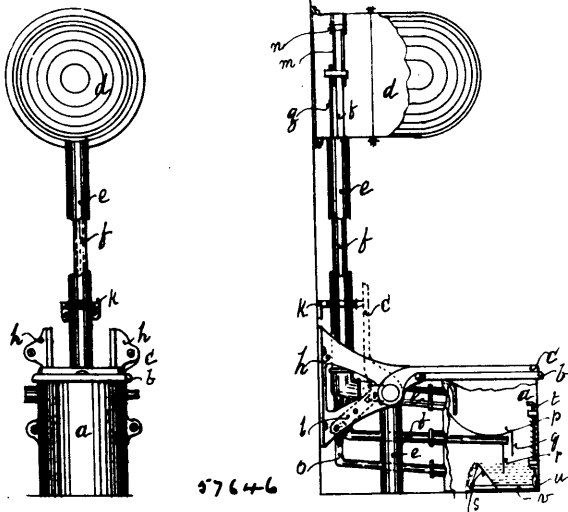
**No. 57,646. Water-Closet. (Latrine à eau.)**

Joseph Gingras, Montréal, Québec, Canada, 1er octobre 1897; 6 ans. (Déposé 26 août 1897.)

*Résumé.*—1° Dans un water-closet à pression, la combinaison du couvercle C avec l'essieu j du robinet i et la citerne close d, tel que ci-dessus décrit et pour les fins indiquées. 2° Dans un water-closet à pression, la combinaison d'un tuyau d'eau e fourni par le robinet i, avec le tuyau d'air f contenu dans le tuyau d'eau e, ainsi que d'une broche z supportant un bout de tuyau m et une rondelle n, tel que ci-dessus décrit et pour les fins indiquées. 3° Dans un water-closet à pression, la combinaison d'un levier ou bascule l supporté par l'essieu x et fonctionnant en conjonction avec l'essieu j du robinet i et la broche z, et le tuyau O, tel que ci-dessus décrit et pour les fins indiquées. 4° Dans un water-closet à pression, la

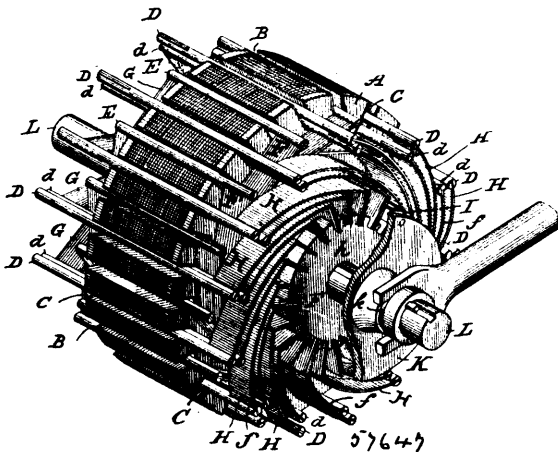
combinaison des consoles *h h* supportant le mécanisme du couvercle *C*, l'essieu *j* du robinet *i*, et l'essieu *x* du levier ou bascule, *l*, tel que

lift valve of the meter, a curved arm *K* secured to the said rod *G*, a crutch *E*, *F*, loop *N* and pin *P* secured to the said arm *K* which is



ci-dessus décrit et pour les fins indiquées. 5<sup>e</sup> Dans un water-closet à pression, la combinaison d'un tuyau d'épuisement *v* et d'une tige ou targette *t* avec bouchon en caoutchouc *u*, tel que ci-dessus décrit et pour les fins indiquées.

**No. 57,647. Armature. (Armature.)**



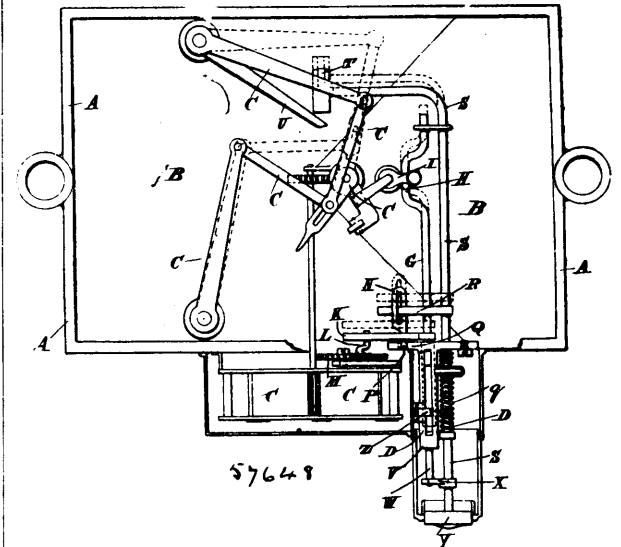
Abe Lincoln Cushman, Concord, New Hampshire, U.S.A., 2nd October, 1897; 6 years. (Filed 19th September, 1896.)

*Claim.*—1st. In an armature for induction motors, a coil composed of an active high resistance portion and two or more low resistance portions, the high resistance portion and one of the low resistance portions being constantly in series, and means for cutting out the high resistance, substantially for the purpose described. 2nd. In an armature for induction motors, coils composed of an active high resistance portion and two low resistance portions, the high resistance portion and one of the low resistance portions being constantly in series, and a switch so arranged as to connect the second low resistance portion in multiple with the high resistance portion. 3rd. An armature for induction motors having coils or windings composed of active high resistance portions and low resistance portions, one of the high resistance portions and one of the low resistance portions being constantly in series, and suitable means for connecting the low resistance portions in multiple with the high resistance portions.

**No. 57,648. Gas Meter. (Gazomètre.)**

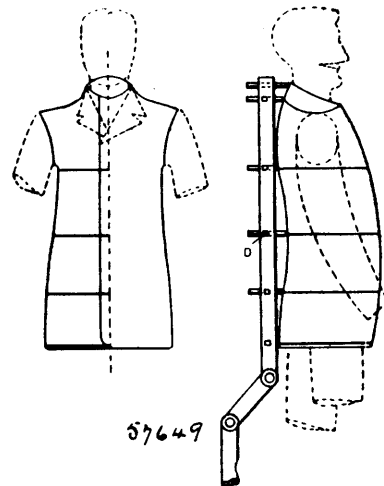
Stephen J. Whithead and John R. Griffiths, both of Great Percy Street, King's Cross Road, London, England, 2nd October, 1897; 6 years. (Filed 14th April, 1897.)

*Claim.*—1st. In a coin-freed gas meter, the combination with the wheel *M* and the arm *L* secured to its rear face, of the partially rotatable sliding rod *G*, having a cranked portion *H* operating the



engaged by the arm *L* on the wheel *M*, substantially as set forth. 2nd. In a coin-freed gas meter, the combination with the partially rotatable sliding rod *G*, an arm *K* secured to the said rod and a loop *N* secured to the said arm, of the partially rotatable sliding rod *S*, an arm *R* secured to the said rod *S* and adapted to engage the said loop *N*, substantially as set forth. 3rd. In a coin-freed gas meter, the combination with the rod *G* having a crank *H* adapted to operate the valve of the gas meter, and the arm *K* secured to the said rod, of the rod *S* bent at a right angle at one end, a weighted slip pawl *T* carried on its bent end, adapted to be engaged by the lever *U*, a spring *q*, push button *Y* and tie-plate *X* at the other end of the said rod, a short rod *W* carried by the said tie-plate, in alignment with the said rod *G*, a cradle *D* adapted to hold a coin or the lowest of a number of superimposed coins, the said coin being interposed between the rods *W* and *G*, substantially as set forth. 4th. In a coin-freed gas meter, the combination with the coin sheet *E*, of the arm *K* carried on the rod *G*, the crutch *E*, *F*, secured to the said arm *K*, and the balance pawl *Z*, substantially as set forth.

**No. 57,649. Apparatus for Drafting Garment Patterns. (Appareil pour tracer les patrons de vêtements.)**



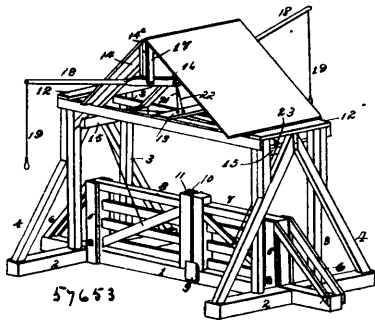
Edward J. Curran, Bathurst, New South Wales, Australia, 2nd October, 1897; 6 years. (Filed 17th July, 1897.)

*Claim.*—1st. Drafting garment patterns by copying curves of the figure with mould wires, and tracing lines derived from said mould wires on a pattern sheet, substantially as described. 2nd. Drafting garment patterns by means of wires moulded to curves of the figure and carried in pairs in a device whereby said wires are made to trace the lines of the pattern, substantially as described. 3rd. A method of obtaining a pattern of a horizontal section of a garment, consisting in moulding wires to the lines of the upper and lower edges of same, mounting said wires in a carrier whereby their form



arranged to engage the latch lever at the inner ends of said projections, whereby the latch lever is positively held against the movement, and operating mechanism connected with the latch lever for enabling the same to be operated at a point adjacent to the hinged edge of the blind, substantially as described.

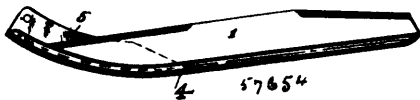
**No. 57,653. Gate. (Barrière.)**



James Chaney, Lebanon, Missouri, U.S.A., 2nd October, 1897; 6 years. (Filed 25th September, 1897.)

*Claim.*—The combination with a framework including pairs of main and supplemental uprights on opposite sides of the roadway, and a supplemental framework secured to said uprights and extending above them, of a pair of gates pivoted in said supplemental uprights at their lower outer corners, one of the said gates having a recess at its upper inner end, and the other having a tongue at its upper inner end, adapted to fit in said recess when the gates are in their closed positions, links pivoted to the opposite ends of a cross-beam in said supplemental framework and depending therefrom, levers fulcrumed respectively in said links and pivoted together at their lower ends, pull cords on the long arms of said levers which extend outwardly on opposite sides of the gate, and cords connected respectively to said gates, extending upwardly therefrom and passing around sheaves or pulleys in cross-beams connecting the respective pairs of said uprights, the said cords being attached at their upper ends to the short arms of said levers at their pivotal points, substantially as and for the purpose described.

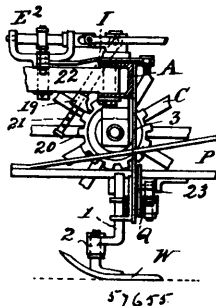
**No. 57654. Sleigh. (Traineau.)**



Jacob R. Sjolander, Ironwood, Michigan, U.S.A., 2nd October, 1897; 6 years. (Filed 25th September, 1897.)

*Claim.*—In a sleigh, the combination with the runner, the upper side of which extends in a straight horizontal line from the front to near the rear, and the underside at the front end curved or rounded, and said front end formed with a rearwardly extending horizontal slot, of the metal shoe having the front end curved upwardly and formed with a central rib engaging with said slot, and said end and rib projecting up above the front end of the runner, substantially as described.

**No. 57,655. Steam Plough. (Charrue à vapeur.)**

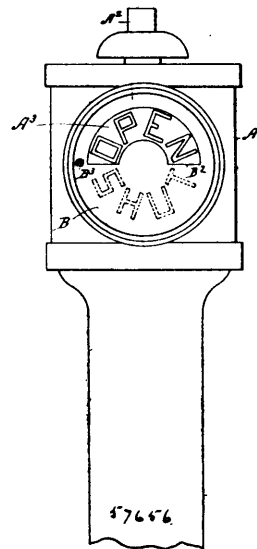


Robert H. Fowler and Thomas Benstead, both of Leeds, England, 2nd October, 1897; 6 years. (Filed 24th September, 1897.)

*Claim.*—1st. In apparatus for steam cultivation such as is herein referred to, a skid W, pivoted to a bracket 1, adjustably mounted on the framed arm P, carrying the cultivating tools, substantially

as described. 2nd. In apparatus for steam cultivation such as is herein referred to, vertical guides 3, carried by the main longitudinal frame A, in which guides work slides 23, to which the bar Q, carrying the arms P, of the cultivating tools are fixed, substantially as described. 3rd. In apparatus for steam cultivation such as is herein referred to, slotted brackets 5, fixed to the framing, in which the pivot pins S<sup>1</sup>, of the arms P, of the cultivating tools are vertically adjustable by means of screws 6, substantially as described. 4th. In apparatus for steam cultivation such as is herein referred to, combining with the framed arms P, carrying the cultivating tools, coulters 8, to which are adjustably attached skimmers 7, substantially as described. 5th. In apparatus for steam cultivation such as is herein referred to, a castor for the fore carriage consisting of a castor wheel and bracket combined with a ring or disc 11, with peripheral groove, mounted within a grooved ring 9, on the fore carriage and supported by balls 13, running in the grooves of the ring 9 and 11, substantially as described. 6th. In apparatus for steam cultivation such as is herein referred to, the combination with the lever D<sup>2</sup>, on the pivot of the axle of the rear wheel C, of divided link 17, 18, adjustable in length, connecting the said lever to the nut on the screw spindle E<sup>2</sup>, substantially as and for the purpose set forth. 7th. In apparatus for steam cultivation such as is herein referred to, a pawl catch for preventing the backward rotation of the wheel C, constructed of two parts, of which the block 19, that engages with the ratchet-wheel of the wheel C, is free to slide within adjustable limits upon the second part or stem 21, pivoted to the framing for the purpose of permitting a certain amount of backward motion to the wheel C, before it is locked, substantially as described.

**No. 57,656. Valve Indicator. (Indicateur de soupape.)**

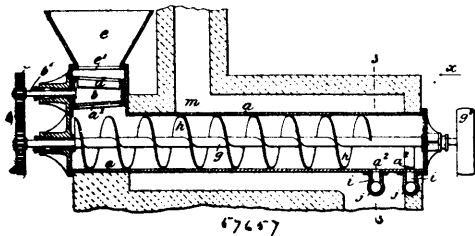


John T. Christie, Troy, New York, U.S.A., 2nd October, 1897; 6 years. (Filed 24th September, 1897.)

*Claim.*—1st. In a valve-indicator, the combination with a rotary valve-operating spindle, and a tight inclosing case, of an indicator-plate rotatively mounted upon the exterior of the case, and operating connections between the rotary spindle and plate extending directly through and fitting an aperture in the case-wall, substantially as described. 2nd. In a valve-indicator, the combination with a valve-operating spindle, and an enclosing case having an indication mark, fixed upon its outer side, of a shield rotatively mounted upon the exterior of the case and movable to and from said mark, and operating connections between said shield and the enclosed spindle, substantially as described. 3rd. In a valve-indicator, the combination with a rotary valve-operating spindle, and an enclosing case having exteriorly located fixed graphic indications, of a shield rotatively mounted upon the exterior of the case and movable back and forth from one to the other of said indications, and an operating connection between the shield and spindle passing directly through the case-wall, substantially as described. 4th. In an indicator, the combination with a rotary spindle, and an enclosing case, of a cross-shaft having bearings in the case walls, a worm-gear connection between the spindle and shaft, a pair of rotary indicator-plates exteriorly mounted upon opposite sides of the case, and having each a stud projecting interiorly of the case, and gear connections between the shaft and the respective studs, within the case, substantially as described. 5th. In an indicator, the combination with a rotary spindle and an enclosing case, of a shield having a recess in its outer surface and an aperture through the case at the centre of the recess, of an indicator plate located in said recess, a stud fixed to the plate and inserted through, and fitting the central

aperture, operating connections within the case between said stud and spindle, and a transparent cover secured over the recess, whereby the indicator-plate is confined within a tight enclosure, substantially as described.

**No. 57,657. Artificial Fuel. (Combustible artificiel.)**

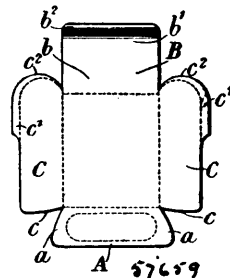


The Patent Agglomment Fuel Syndicate Company, 26 Wind Street, Swansea, Wales, assignee of Herbert C. B. Forester, Pen-ybryn, Sketty, Wales, 2nd October, 1879; 6 years. (Filed 22nd September, 1897.)

*Claim.*—1st. The herein-described process of manufacturing artificial fuel, which consists in first crushing or reducing coal or the like solid carbonaceous bodies to a finely-divided condition, and mixing therewith in suitable proportions the herein-specified hydrocarbons, and incorporating same by heating them in the presence of each other in a heated vessel closed so as to prevent escape of volatiles therefrom and consequently under pressure, and thereafter removing the mass from said vessel, and while in the presence of its own gases or vapours pressing said mass into solid form, substantially as and for the purposes set forth. 2nd. In the manufacture of artificial or patent fuel, a closed retort or pug-mill provided with means to heat same, and mechanism in the interior thereof to agitate and pass the fuel material through said retort, in combination and acting in conjunction with a closed-in press adjacent to and in direct and closed connection with said retort, the whole apparatus being so closed at all points and connections as to prevent any escape of volatiles or vapours even when under considerable pressure, substantially as and for the purposes hereinbefore described and illustrated. 3rd. In the manufacture of artificial or patent fuel, a closed retort or pug-mill, adapted to be heated in any suitable manner, provided with means to continuously introduce the fuel material into, and means to continuously pass same out again from, said retort without permitting escape of volatiles or vapours from said retort, even when under considerable pressure, in combination with mechanism, such as hereinbefore specified, operating in the interior of said closed retort to pass the said fuel material through said retort, and simultaneously mix said material, substantially as and for the purposes hereinbefore described. 4th. In the manufacture of artificial or patent fuel, the improved apparatus consisting of heated chamber *a*, the rotatable valve *b*, provided with cavity *d* adapted to coincide with opening *e*<sup>1</sup> in the hopper *e*, and inlet *a*<sup>1</sup> in the chamber *a*; the rotatable shaft *g*, and the conveyer *h*, the inlet pipe *i* communicating between the chamber *a* and compressing cylinder *j*, and the ram *k* operating in the cylinder *j*, substantially as specified. 5th. The new or improved artificial compound of coal or other solid carbonaceous bodies and viscous or liquifiable hydrocarbons incorporated, heated and pressed in the manner and for the purposes hereinbefore described.

arch bars arranged between said panel and said pedestals and converging toward the pedestals, a tie bar connecting the lower ends of the pedestals and provided with lugs or lips which bear against the inner jaws of the pedestals, and with similar lugs or lips which bear against opposite sides of the central panel of the frame, substantially as set forth. 3rd. The combination with the cast metal side frames, each having a central horizontal pocket extending outwardly to the face of the frame and pedestals arranged at the ends of the frame, of tire bars connecting said pedestals, a transom composed of flanged bars seated at their ends in said pockets, and vertical bolts passing through the tie bar of each side frame, the bottom of its pocket and the lower flanges of said transom bars, substantially as set forth.

**No. 57,659. Sheet Metal Box. (Boîte en feuille de métal.)**

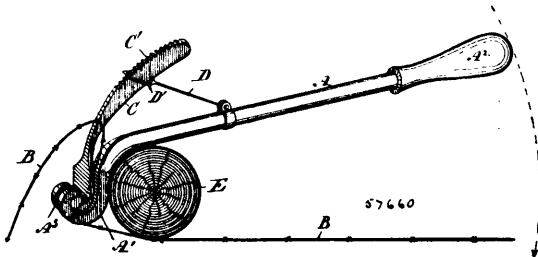


Tito L. Carbone, No. 343 Calle Sarandi, Monte Video, Sout 1 America, 2nd October, 1897; 6 years. (Filed 24th September, 1897.)

*Claim.*—A sheet metal box consisting of two pieces, one piece having sides and ends bent up from the bottom to form the body of the box and another piece forming the lid, connected to the body by its curved rear edge lying in a groove formed in the front margin of the back and its two tongues being engaged between the groove and the overlapping wings of the sides, substantially as described.

**No. 57,660. Fence Wire Stretcher.**

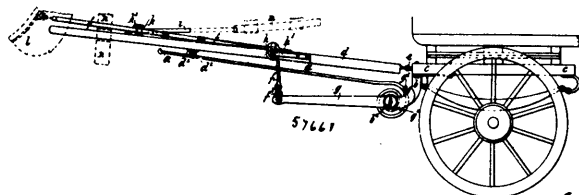
(Tendeur de cloture en fil de fer.)



George A. Kaufmann, Tavistock, Ontario, Canada, 2nd October, 1897; 6 years. (Filed 24th September, 1897.)

*Claim.*—1st. A wire stretcher, comprising a hand lever *A*, having a bifurcated end *A*<sup>1</sup>, a clamp lever *C*, having a curved end fitting coincidentally in said curved end *A*<sup>1</sup>, and provided with notches *C*<sup>1</sup> near the other end, and a holdfast rod *D* hinged at one end to lever *A*, and provided with a link *D*<sup>1</sup> at the other end and engaging said notches, as set forth. 2nd. The combination of the hand lever *A*, clamp lever *C*, and holdfast rod *D*, operating as described.

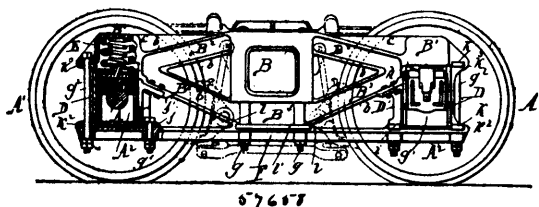
**No. 57,661. Harness. (Harnais.)**



Thos. H. Briggs, Bradford, Ontario, Canada, 2nd October, 1897 6 years. (Filed 24th September, 1897.)

*Claim.*—1st. The combination of adjustable springs *a*, and levers *g*, carried by brackets *b* applied to the fore-carriage; spring deflect-

**No. 57,658. Car Truck. (Chassis de chars.)**



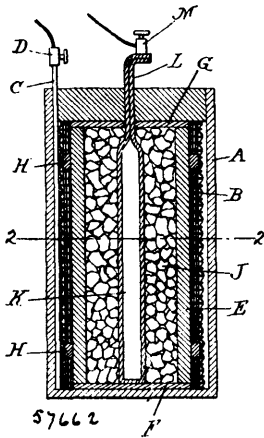
The Gould Coupler Company, New York, State of New York, assignee of Willard F. Richards, Buffalo, New York, both in the U.S.A., 2nd October, 1897; 6 years. (Filed 20th September, 1897.)

*Claim.*—1st. A side frame for car trucks having a central portion or panel, pedestals arranged at the ends of the frame, upper and lower arch bars arranged between said panel and said pedestals and converging toward the pedestals, and a tie bar connecting the lower ends of the pedestals and provided with lugs or lips which bear against the inner jaws of the pedestals, substantially as set forth. 2nd. A side frame for car trucks having a central portion or panel, pedestals arranged at the ends of the frame, upper and lower

ing pulleys *d*<sup>2</sup>, trace deflecting pulleys *h*, and breech strap deflecting pulleys *k*, applied to shafts pivoted at *e*, to the fore part of the fore-carriage; and traces *f*, connected to the levers *g*, and to the animal at the collar and deflected by the pulleys *h*, and breech connections *i*, connected to the traces and deflected by the pulleys *k*, and belly and back bands *n*, by which the resultant lifting or down-bearing force operating through the ordinary shafts *d*, is applied to the animal, as set forth. 2nd. The combination of adjustable springs *a*, and levers *g*, carried by brackets *b*, applied to the fore-carriage; spring bearing pulleys *d*<sup>2</sup>, and trace deflecting pulleys *h*, applied to shafts pivoted at *e*, to the fore part of the fore-carriage; and traces *f*, connected to the levers *g*, and to the animal at the collar and deflected by the pulleys *h*; and belly and back bands *n*, by which the resultant lifting or down-bearing force operating through the ordinary shafts *d*, is applied to the animal, as set forth.

material *a*, placed on one side thereof and arranged as and for the purpose specified. 4th. In a light deflector, the combination, with

**No. 57,662. Storage Battery. (Accumulateur d'électricité.)**



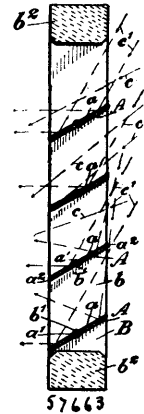
Lee & Company, assignee of Varian M. Harris, all of Chicago, Illinois, U.S.A., 4th October, 1897; 6 years. (Filed 10th April, 1897.)

*Claim.*—1st. A storage battery comprising an outer retaining case or cup, an outer cylindrical shaped gauze-like body constituting the negative element, an inner cylindrical porous cup, a central cylindrical positive element having a smooth unbroken surface, a mass of active material annular in cross section interposed between the walls of the porous cup and the surface of the opposite element, the two elements and the active material arranged symmetrically about a common axis and a suitable fluid in the retaining cup. 2nd. A storage battery comprising an outer retaining case or cup, an outer cylindrical shaped mercury-covered copper gauze-like body constituting the negative element, an inner cylindrical porous cup, a central cylindrical positive element having a smooth unbroken surface, a mass of active material annular in cross-section interposed between the walls of the porous cup and the surface of the opposite element, the two elements and the active material arranged symmetrically about a common axis, and a suitable fluid in the retaining cup. 3rd. A storage battery comprising a central positive element, a porous cup surrounding the same, a mass of active material within the cup and about the element, an outer copper gauze mercury covered negative element, a case or cup to contain the whole and a suitable fluid within the case. 4th. A storage battery comprising a central metallic positive element, a porous cup surrounding the same, an outer case, a fluid in the same, and a cylindrical copper gauze mercury covered negative element within the retaining case and surrounding the porous cup and positive element, and an insulation seal at each end of the porous cup, substantially as shown and described.

**No. 57,663. Light Deflector. (Déflecteur de lumière.)**

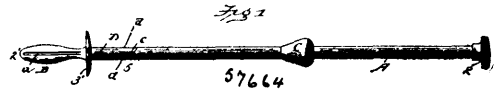
William J. Withrow, Montreal, Quebec, Canada, 4th October, 1897; 6 years. (Filed 1st June, 1897.)

*Claim.*—1st. The method of deflecting light from its normal, to any desired direction, by placing across its path a plurality of brightly reflecting slats, arranged in series, spaced apart and so adjusted that light, falling upon the reflecting faces of the slats from one side of the series, will be reflected therefrom, to the other side of the series, in the desired direction, the light so deflected having passed between the slats, as and for the purpose specified. 2nd. A light deflector, comprising a plurality of brightly reflecting slats, arranged in series, spaced apart and so adjusted that light, falling upon the reflecting faces of the slats from one side of the series, will be reflected therefrom, to the other side of the series, the light so deflected having passed between the slats, as and for the purpose specified. 3rd. A light deflector, comprising a plurality of slats A and sheets of mirror glass or other suitable brightly reflecting



the slats A, having the brightly reflecting surface *a*, of the side-bars *b* by which the slats A are supported, as and for the purpose specified.

**No. 57,664. Uterine Dilator. (Dilatateur utérin.)**

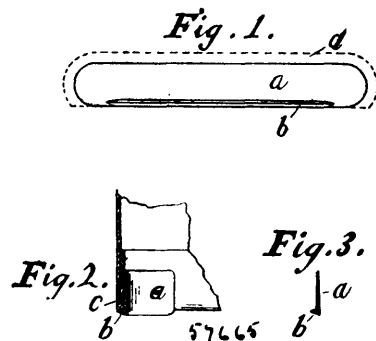


Timothy Allen Lewis, Frank A. Bigelow and David H. Palmer, all of La Crosse, Wisconsin, U.S.A., 4th October, 1897; 6 years. (Filed 18th August, 1897.)

*Claim.*—As an improved article of manufacture, a dilator comprising the cylindrical handle, provided with the fixed milled knob 2, and having its opposite end formed with the integral rectangular tongue *c*, the cylindrical rod *D*, formed with the integral parallel jaws *d, d'*, between the parallel walls of which the said rectangular tongue *c* is pivoted by the transverse rivet *e*, the conical pear-shaped sleeve *C*, snugly encompassing the joint between the handle and the rod, to fix it rigid, the screw-stud 3 formed integral with said rod, and the detachable solid stem *B*, provided with the threaded orifice 4, and having the integral concave flange 3', encompassing its base, and the longitudinal parallel grooves *a, a'*, formed in the opposite sides of said stem, substantially as shown and described.

**No. 57,665. Trousers Protector.**

(Protecteur de pantalon.)

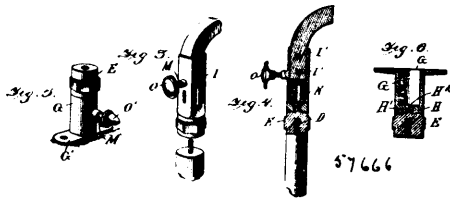
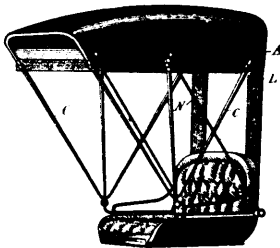


Louise M. Howes, Montreal, Quebec, Canada, 4th October, 1897; 6 years. (Filed 13th August, 1897.)

*Claim.*—1st. A trousers protector consisting of a strip of soft rubber or other analogous material moulded with a longitudinal projection or rib so as to wholly cover and protect the lower edge of the trousers leg from wearing and soiling the boot or shoe. 2nd. A trousers protector consisting of a strip of soft rubber or other analogous material moulded with a longitudinal projection or rib so as to wholly cover and protect the lower edge and to have its thickest portion rest upon the boot or shoe and increase its wearing capacity and reduce its weight and clumsiness. 3rd. A trousers protector consisting of a strip of soft rubber moulded with a longitudinal pro-

jection or rib so as to wholly cover and protect the lower edge and covered so that the rubber alone shall bear upon the boot or shoe and still show the least appearance of material foreign to the trousers leg. 4th. A trousers protector consisting of a strip of soft rubber or other analogous material moulded with a longitudinal projection or rib so as to wholly cover and protect the lower edge and so as to be easily attached to every kind and size of trousers leg.

**No. 57,666. Carriage Top Connections.**  
(*Joint pour dessus de voitures.*)



Amis Krider, Chicago Heights, Illinois, U.S.A., 4th October, 1897; 6 years. (Filed 13th September, 1897.)

*Claim.*—1st. In a carriage top connection, the combination with the props having reduced threaded ends, of the sockets adapted to be connected to the carriage top, said sockets having nuts swivelled to the bottom thereof, substantially as shown and described. 2nd. In a carriage top connection, the combination with the props having reduced threaded ends, of the sockets having holes in the bottom thereof, and the nuts having a pin projected upward through said holes and headed to permit rotation and prevent disconnection, substantially as shown and described. 3rd. In a carriage top connection, the combination with the props having reduced threaded ends, and the sockets adapted to be attached to the top of the vehicle, said sockets having an integral bolt or threaded post, and a nut swivelled to the bottom of the socket, substantially as shown and described. 4th. In a carriage top connection, the combination with the props having reduced threaded ends, of the sockets having integral bolts or posts at the side, and the opening in the bottom thereof, and the nuts having pins at their upper ends and passing through the holes and bottom of the socket, said pins being headed to permit rotation and prevent disconnection, substantially as shown and described. 5th. In a carriage top connection, the combination with the props having reduced threaded ends, of the nuts adapted to engage said threaded ends, the sockets to which said nuts are swivelled, said sockets being adapted to receive the top bows from the carriage, and also slotted at the sides to receive the hinge bows of said top, substantially as shown and described.

**No. 57,667. Rocking Chair.** (*Fauteuil à bascule.*)

Thomas L. Holt, Burlington, North Carolina, U.S.A., 4th October, 1897; 6 years. (Filed 13th September, 1897.)

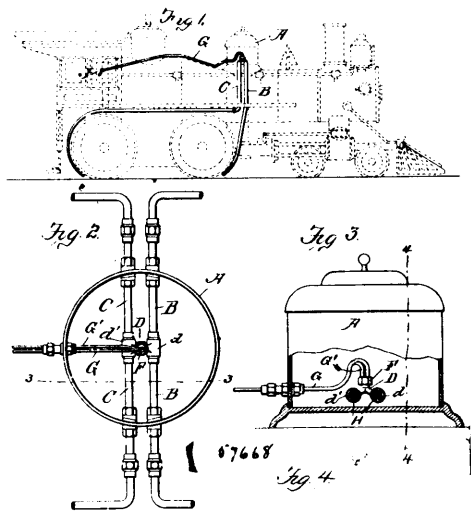
*Claim.*—1st. A rocking chair provided with a suitable seat, legs and rockers rigidly secured thereto, that portion of the rockers in the rear of the rear legs being pivotally attached, in combination with means for raising said rear portion to a vertical position against the rear legs, substantially as set forth. 2nd. The combination in a rocking chair of a seat, legs and rockers rigidly secured together, with rear extensions pivoted to the rockers in the rear of the rear legs of the chair, means for raising these extensions to a vertical position behind the rear legs, and stops brought into position by the adjustment of the rocker extension whereby the chair is supported in a non-rocking position, substantially as described. 3rd. The combination in a rocking chair of a rigid seat, rigid legs and rigid rockers secured thereto, extensions to the rear in line with the rockers, plates rigidly secured to said extensions and pivotally secured to the rear ends of the rockers, other plates secured upon the inner surfaces of the extensions and projecting some distance along the rockers when the extension and rocker are in line, and means for raising said extensions and plates to a vertical position in the rear of the chair, whereby the extension of said plates become stops to prevent the rocking of the chair and hold in an upright position, substantially as set forth. 4th. The combination in a rocking chair of a rigid seat, rigid legs and rigid rockers, with pivoted

extensions at the rear ends of the rockers and toggle levers secured rigidly at their forward ends to a cross bar connecting the rear legs



of the chair and at the other ends to a cross bar connecting said rocker extensions, said first named bar provided with a suitable handle, whereby said rocker extensions may be adjusted to a vertical position behind the chair, substantially as set forth. 5th. The combination in a rocking chair of rigid seat, legs and rockers with extension arms pivotally connected to the rear end of the rockers, plates rigidly secured to the rocker extensions and extending forwardly along the rockers some distance in front of the pivot, toggle levers connected together by a bolt hinge, said arms being pivotally connected to a cross bar connecting the rocker extensions and the other to a cross bar pivoted between the rear legs of the chair and extended to form a handle, substantially as set forth.

**No. 57,668. Track Sanding Apparatus.**  
(*Appareil à sabler la voie.*)

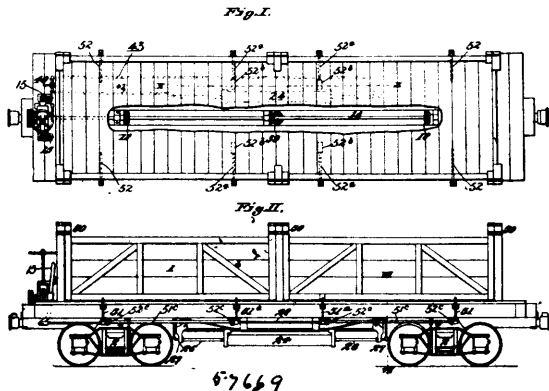


Jerome A. Houston, Springfield, Missouri, U.S.A., 4th October, 1897; 6 years. (Filed 18th September, 1897.)

*Claim.*—1st In a sanding device, the combination with the sand-box, of a delivery pipe for the sand, which pipe passes through the lower portion of said box, the ends of said pipe being located in juxtaposition to the rails, a coupling in the length of said delivery pipe, an opening or openings in said coupling, and a nozzle arranged in the coupling opposite said opening, said nozzle directing blasts in opposite directions into the delivery pipe, whereby the sand in the box is sucked up and forced into and through the delivery pipe, in opposite directions, to each rail, substantially as described. 2nd. In a sanding device, the combination, with the sand-box, of a continuous delivery pipe arranged through the lower portion thereof, the ends of said delivery pipe terminating above the rails, a coupling in the length of said delivery pipe, said coupling having an opening or openings within the sand-box, a blast nozzle in said coupling for directing a blast of air in opposite directions through the delivery pipe, said nozzle being substantially the length of the opening in the coupling, and a valve for controlling said blast, sub-

stantially as described. 3rd. The combination, with a sand-box, of front and back delivery pipes which pass through the lower portion of said box, of a coupling formed with two branches, said branches being respectively portions of the delivery pipes, openings in the lower side of said coupling branches, nozzles in said branches, and two pressure supply pipes leading to said nozzles, substantially as described. 4th. The combination, with a sand-box, of front and back delivery pipes which pass through the lower portion of said box, a coupling formed with two branches, said branches being respectively portions of the delivery pipes, openings in the lower side of said coupling branches, blast nozzles in said branches opposite said openings, said nozzles being substantially the length of said openings, pressure supply pipes leading to said nozzles, and a valve for admitting pressure to either or both of said supply pipes, substantially as described. 5th. In a track-sanding apparatus, the combination, with the sand-box, of a divided coupling containing blast nozzles, delivery pipes, pressure supply pipes leading to said nozzles, and a valve for controlling the pressure in said supply pipes, said valve comprising a suitable casing, a hollow plug-valve within the casing which is seated by pressure, a handle for operating said valve, and means for determining the registration of the ports in the valve with ports in the valve casing, substantially as described.

**No. 57,669. Dumping Car. (Char à bascule.)**

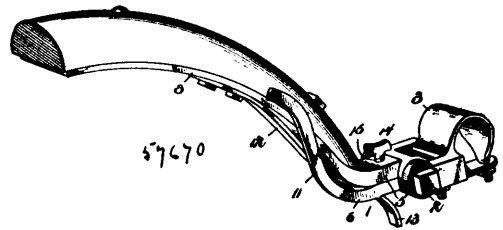


The Missouri Car and Foundry Co., assignee of Otto C. Bauer, all of St. Louis, Missouri, U.S.A., 4th October, 1897; 6 years. (Filed 23rd September, 1897.)

*Claim.*—1st. In a dumping car, the combination with the car body, of dumping gear therefor, a power cylinder operatively connected with the dumping gear, and auxiliary hand-operated mechanism for actuating the dumping gear should the power cylinder fail. 2nd. In a dumping car, the combination with the car body, of dumping gear therefor, a power cylinder operatively connected with the dumping gear, and auxiliary hand-operated mechanism for actuating the dumping gear should the power cylinder fail, said hand-operated mechanism being adapted to be thrown into or out of connection with the dumping gear, as required. 3rd. In a dumping car, the combination with the main dumping shaft, of an auxiliary worm wheel shaft geared thereto, a worm spindle adapted to be thrown into or out of engagement with the worm wheel, a friction drum on the worm wheel shaft, and a hand-brake co-operating with said friction drum. 4th. In a dumping car, the combination with the main dumping shaft, of an auxiliary worm wheel shaft geared thereto, a worm spindle adapted to be thrown into or out of engagement with the worm wheel, a friction drum on the worm wheel shaft, and a hand-brake co-operating with said friction drum, said hand-brake consisting of brake shoes bearing against opposite sides of the drum and connected by swinging links to an operating lever. 5th. In a dumping car, the combination with the dumping shaft, of a drum geared thereto, a power cylinder, and rigging intermediate of the cylinder and drum, for transmitting motion from the cylinder to the drum and consequently to the dumping shaft, said rigging consisting of ropes secured at one end to the drum barrel and at the other end to a fixed point of attachment and passing over pulleys mounted upon the cylinder. 6th. In a dumping car, the combination of a movable cylinder enclosing a fixed piston, pipes for admitting fluid to said cylinder on opposite sides of the piston, and dumping gear connecting said cylinder to the car body. 7th. In a dumping car, the combination of a movable cylinder, a fixed piston enclosed by said cylinder, a hollow perforated rod to which said piston is secured, pipes connected to said rod for admitting fluid to said cylinder on opposite sides of said piston, and dumping gear connecting said cylinder to the car body. 8th. In a dumping car a mechanism for rocking the body of said car, consisting essentially of the sliding cylinder containing a fixed piston, means for admitting fluid to said cylinder on each side of said piston, a drum, ropes connected to said drum and to fixed points of attachment on the car and which pass around pulleys secured to said cylinder, and a dumping shaft having chain connection with the car body, and a gear connection with said drum. 9th. In a dumping car, the

combination of a car body, a shaft journaled to the car body and provided with chain wheels, chains connected to said body and passing over said chain wheels, a drum geared to said shaft, a sliding cylinder, ropes secured to the car body and to said drum, and which pass around pulleys secured to said cylinder, a fixed piston within said cylinder, a hollow piston rod, pipes connecting respectively with the opposite ends of said piston rod, and a valve for controlling the passage of fluid through said pipes. 10th. In a dumping car, the combination with the releasing latches for the hinged sides thereof, of friction rollers mounted to revolve freely in contact with the rear side of the latches.

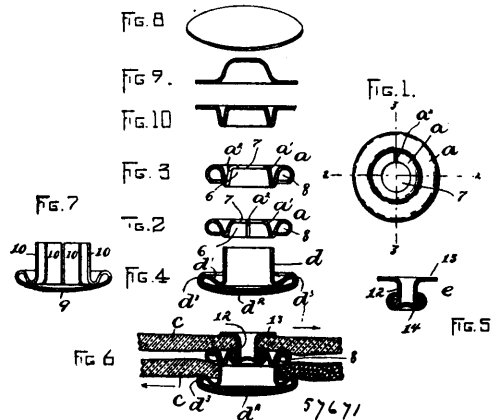
**No. 57,670. Shaft and Pole Coupling. (Joint de timon et limonière.)**



Edmond Benkert, Jasper, Indiana, U.S.A., 4th October, 1897; years. (Filed 23rd September, 1897.)

*Claim.*—1st. In a device of the class described, the combination with an axle-clip provided with ears and having a coupling-bolt, of an eye receiving the coupling-bolt and composed of upper and lower sections hinged at their rear ends, the upper section being adapted to be applied to a pole or a thill, and a resilient catch rigidly secured to the upper section and arranged to engage the lower section automatically when the same is closed, substantially as described. 2nd. In a device of the class described, the combination with an axle-clip provided with ears and having a coupling-bolt, of an eye composed of upper and lower sections hinged at their rear ends, the upper section being adapted to be applied to a pole or a thill, and the lower section being provided with a recess and having a forwardly-extending handle, and a resilient catch rigidly secured at its front end to the upper section and having its rear end curved and arranged to be engaged automatically by the lower section at the recess thereof when the said lower section is closed, substantially as described.

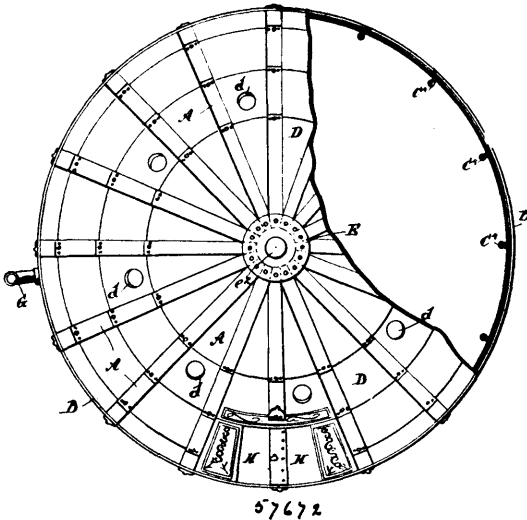
**No. 57,671. Fastening for Gloves, etc. (Attache de gants, etc.)**



Warren B. Page, Newton, Massachusetts, U.S.A., 4th October, 1897; 6 years. (Filed 23rd September, 1897.)

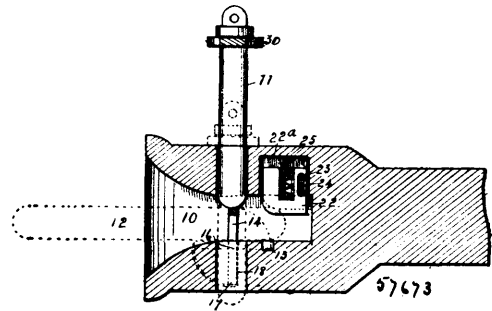
*Claim.*—1st. In a fastening device of the character specified, a socket member comprising an annular sheet-metal body having an annular socket provided with an outwardly inclined inner wall to receive and turn the end of an attaching eyelet, said body also having a resilient inwardly projecting flange integral with said body and extending in a direction opposite to the opening or entrance to the annular socket and formed to engage a stud member. 2nd. In a fastening device of the character specified, a member comprising, first, a sheet-metal annular body having an annular socket and a divided or slotted resilient inwardly projecting flange integral with the body and extending in a direction opposite to the opening or entrance to the annular socket, and secondly, an eyelet having a head or cap at its outer end, its inner end being adapted to enter and be spread in said annular socket.



No. 57,672. Knock-Down House. (*Maison en section.*)

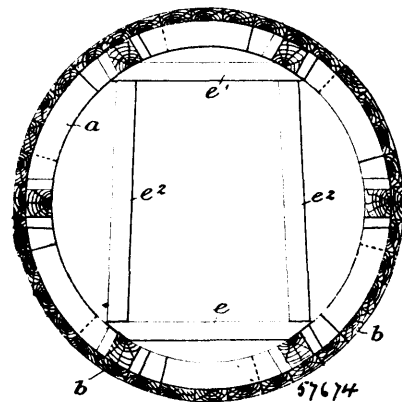
Peter Arthur Toft, New York, State of New York, U.S.A., 4th October, 1897; 6 years. (Filed 25th September, 1897.)

*Claim.*—1st. A knock-down house, made in the general form of a dome, having ribs formed of plates secured together so as to leave a groove in each edge, a central crown formed of two plates secured together and having sockets between their edges adapted to receive the upper ends of the ribs, and plates adapted to enter the grooves in the edges of the ribs and fit between adjacent ribs, substantially as described. 2nd. A knock-down house, made in the general form of a dome, having ribs formed of plates secured together so as to leave a groove in each edge, said ribs being made in sections which may be secured together at their ends, the outer layer of each section registering with the groove in the section next above, a central crown, consisting of two plates secured together and having sockets between their edges adapted to receive the upper ends of the ribs, and plates adapted to enter the grooves in the edges of and fit between the adjacent ribs, substantially as described. 3rd. A bolt for securing sections of a knock-down house, having a ring attached to the nut thereof, substantially as described. 4th. A bolt for securing sections of a knock-down house, comprising a shank or bolt body, washers consisting of a bar having at each end projecting pins extending in the direction of the shank and a nut having a ring attached thereto, substantially as described. 5th. A knock-down house, having hooks or eyes attached to the inner walls thereof at intervals, and a central stand having hooks or rings thereon, said wall and centre rings being adapted to support hammocks, substantially as described. 6th. A knock-down house, composed of ribs meeting at their upper ends and having grooves in their edges, segmental plates adapted to fit said grooves, and a ventilating pipe connecting with the bottom of the house and extending upward outside of the house, substantially as described. 7th. A knock-down house, composed of ribs meeting at their upper ends and having grooves in their edges, segmental plates adapted to fit the grooves in the edges of the ribs, and an encircling band surrounding the base of the house, said ribs and bands being made in sections and bolted together, substantially as described. 8th. A knock-down house, composed of vertical ribs meeting at their upper ends and having grooves in their edges, segmental plates adapted to fit the grooves in the edges of the ribs, and an encircling band surrounding the base of the house, said ribs and bands being made in sections and bolted together, said house having a door opening on one side, guides adjacent thereto and a door sliding therein, substantially as described. 9th. A knock-down house, composed of ribs meeting overhead and having grooves in their edges, a central crown receiving the upper ends thereof, said crown being formed of two plates having a spacing washer between, segmental plates adapted to fit the grooves in the edges of the ribs, and an encircling band surrounding the edges of the house and secured to the lower ends of the ribs, substantially as described. 10th. A sectional or knock-down house, having ribs formed in short sections, each section consisting of two outer plates of substantially the same width and an interposed plate of narrower width, thus forming a groove in each edge, the plates at the joining ends of the sections projecting successively at a greater distance, and adjacent sections being joined to each other by butting an outer plate of each section against the central plate of the other section, and securing the sections through the overlapping parts, substantially as described.

No. 57,673. Car-Coupler. (*Attelage de chars.*)

John W. Price, Belfast, Washington, U.S.A., and Dan McKinnon, Vancouver, British Columbia, Canada, 4th October, 1897; 6 years. (Filed 24th September, 1897.)

*Claim.*—1st. In a car-coupling having a link and pin and openings for the same, the combination of a recess in the lower wall of the opening in the draw-head, a movable pin-support arranged in said recess and made to normally support the coupling pin, and means for automatically returning the said pin-support to a vertical position and so poising it, as specified. 2nd. In a car-coupling having the ordinary link and pin, the combination of a movable pin-support 14 arranged within the lower wall of a draw-head, a movable block 22 inserted within an opening in the opposite rear wall of the said draw-head, a slot in said block, a pin or bolt passing through the draw-head and through the said slot, a spring inserted within an opening in the said block whereby the same will be pressed downwards, as specified. 3rd. In combination with a car-coupler having a link and pin, a link supporting device 14 arranged to automatically return to a vertical position, and means for raising the pin and resting it above the track of an approaching link in the opening of a draw-head, a block 22 arranged on the opposite side and towards the rear side of the said opening and means for pressing it downwards to contact with an inserted coupling link, substantially as specified.

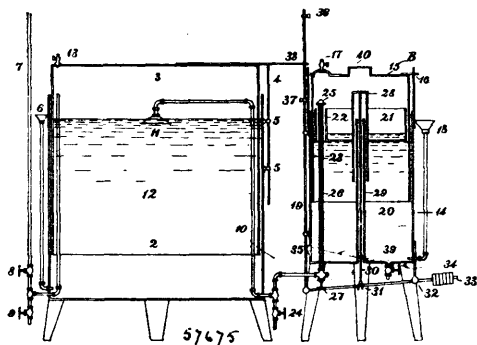
No. 57,674. Lining for Shield Tunnelling. (*Parois de tunnels.*)

George H. Dunlop, No. 139 Bridport Street, South Melbourne, Victoria, Australia, 5th October, 1897; 6 years. (Filed 14th June, 1897.)

*Claim.*—1st. In a device of the class specified, a series of wall-rings bolted or otherwise secured to each other, each ring being composed of ribs formed in segments to facilitate removal, laggings *b*, and struts *c*, arranged substantially as described. 2nd. In a device of the class specified, a series of wall-rings bolted or otherwise secured together, each ring being composed of ribs *a*, formed in segments to facilitate removal, laggings *b*, struts *c*, and flanges *f*, all secured together and arranged substantially as described. 3rd. In a device of the class specified, a series of wall-rings bolted or otherwise secured together, each ring being composed of ribs *a*, formed in segments to facilitate removal, laggings *b*, struts *c*, flanges *f*, and segments *d*, all secured together and arranged substantially as described. 4th. In a device of the class specified, wall-rings bolted or otherwise secured to each other, each ring being composed of ribs *a*, one of which is of less diameter than the other and overlapping laggings *b*, as and for the purpose specified. 5th. In a device of the class specified, a series of wall-rings bolted or otherwise secured together, each ring being composed of ribs *a*, formed in

segments to facilitate removal, laggings *b*, struts *c*, flanges *f*, wedges *h*, segments *d*, and a strengthening set *e*, *e'*, all secured together and arranged substantially as described.

**No. 57,675. Acetylene Gas Generator.**  
(Générateur à gas acetyline.)



Herbert A. Zettel, Shakopee, Minnesota, U.S.A. 5th October, 1897; 6 years. (Filed 5th June, 1897.)

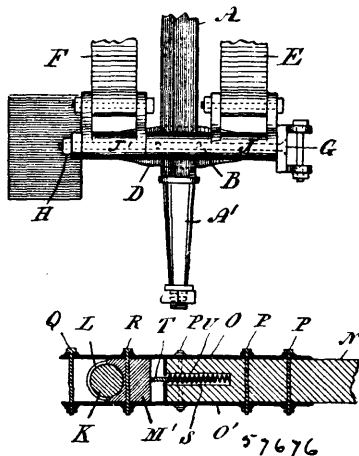
*Claim.*—1st. The combination with the water sealed gas holder and gas generator of the class described, of the pipe connecting the generator with the gas holder, and having its outlet beneath the level of the water therein, the carbide basket arranged in the generator and the means for raising and lowering the same controlled by the bell of the gas holder. 2nd. In an apparatus of the class described, the combination with the gas holder of the generator comprising in combination the water receptacle adjustable therein and sealed by said water, the basket enclosed within said bell and adapted to be vertically adjusted therein, and the means operated by the bell of the gas holder for raising and lowering said basket. 3rd. In an apparatus of the class described, the gas generator comprising in combination the water receptacle, the bell adjustable therein and sealed by its contained water, the means for securing the bell in normal position, the carbide basket arranged within said bell, the standpipe arranged in said holder to permit the outflow of gas and projecting into and through vertical opening in said basket, the valve for closing the top of said standpipe, the centrally arranged standpipe in said generator opening through the bottom of the water receptacle, and telescoping into the closed pipe in said basket, the rod extending through said standpipe and to the top of said closed pipe, the lever for reciprocating said rod and the operating connections between said lever 31 and the bell of the gas holder, whereby the carbide basket is carried into or out of the water automatically by the rise and fall of the bell of the gas holder. 4th. In an apparatus of the class described, the combinations with the gas holder "A" having a bell 3 and the generator "B" having the bell 15, of the spring catches for supporting the bell 15 in normal position, the carbide basket arranged therein, the standpipe 23 arranged in said generator and provided with a valve 25, the standpipe 29 working in an opening in the basket, the rod extending through said pipe 29 and to the basket the lever 31 connected to said rod and serving to actuate the same to raise and lower the basket, and the operating connection between said lever 31 and bell 3, whereby the rise and fall of the bell 3 serves to automatically raise and lower the basket.

**No. 57,676. Carriage Running-Gear.**  
(Engrainage de voitures.)

Mathew Stanley, Perth, Ontario, Canada, 4th October, 1897; 6 years. (Filed 2nd July, 1897.)

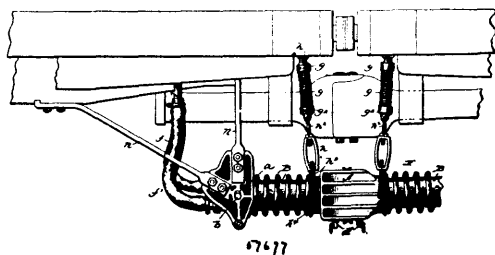
*Claim.*—1st. The combination with the axle and two bolster springs provided with shackles *J*, *J'*, of a T-shaped stud or bearing *B*, and a D-shaped spring hanger or yoke *D*, clipped to the axle, and a bolt *G*, passing through the stud and yoke and the tubular end of the shackles intervening the same, as set forth. 2nd. The combination of the spring hanger *D*, bolt *G*, bearing *B*, and clip *C*, substantially as and for the purpose set forth. 3rd. The combination with the reach *N*, and axle *K*, of the plates or straps *O*, *O'*, bolted to the reach, and a plate *M*, having a bracket or swell projection *M'*, and a connecting bolt *R*, passing through said reach-plates and bracket-projection, as set forth. 4th. The combination with the reach and axle of the plates or straps *O*, *O'*, bolted to the reach, plate *M*, clipped to the axle and provided with a bracket projection *M'*, a connecting bolt *R*, passing through said

plates or straps, and a spring *T*, at the end of the reach to impinge said bracket-projection, to prevent the connecting bolt rattling.



5th. The reach *N*, having a spring at the end to keep the coupling connection from rattling.

**No. 57,677. Pipe Coupler.** (Joint de tuyau.)



Edward G. Cox, assignee of James E. Marble, all of Albany, New York, U.S.A., 5th October, 1897; 6 years. (Filed 17th September, 1897.)

*Claim.*—1st. The combination with a coupler, of a hanger provided with a gimbal supporting said coupler, said gimbal being loosely journaled in elongated vertical bearings, substantially as described. 2nd. A coupler provided with a head having fluid passages, pipes connecting with said passages, and encasing tube for the pipes, and a hanger containing a gimbal supporting the tube, said gimbal being loosely journaled in elongated vertical bearings, substantially as described. 3rd. A coupler provided with a head having fluid passages, pipes connecting with said passages, an encasing tube for the pipes, a hanger containing a gimbal supporting the tube, said gimbal being loosely journaled in elongated vertical bearings, and spring hangers connected with opposite sides of the head, substantially as described. 4th. A coupler provided with a head having a series of fluid passages whose outlets are arranged in the same central vertical plane and whose inlets are arranged in different vertical planes, pipes connecting with the inlets and parallel to each other, an encasing tube for the pipes, a hanger containing a gimbal through which the tube passes, and a closing plate at the end of the tube, through which the pipes pass, substantially as described. 5th. A coupler head having central fluid passages, and outlying tongues, one of which is straight and the other inclined, and both of which are separated from the walls of the central fluid passages by intervening recesses, and a third inclined tongue projecting from and forming a continuation of one of said walls, the said inclined tongues verging towards each other from without inwardly to practically a single plane of nearest approach and being separated thereat a distance equal to the thickness of the straight tongue, substantially as described. 6th. A coupler head having central fluid passages and outlying tongues, one of which is straight and the other inclined and both of which are separated from the walls of the central fluid passages by intervening recesses, and a third inclined tongue projecting from and forming a continuation of one of said walls, the said inclined tongues verging toward each other from without inwardly to practically a single plane of nearest approach and being separated thereat a distance equal to the thickness of the straight tongue and cross webs connecting the tongues with the walls of the central fluid passages, said cross webs being likewise inclined and verging toward each other from without inwardly to the plane of nearest approach, substantially as described. 7th. A coupler head fluid outlet port, having there in a shouldered bushing, a corres-

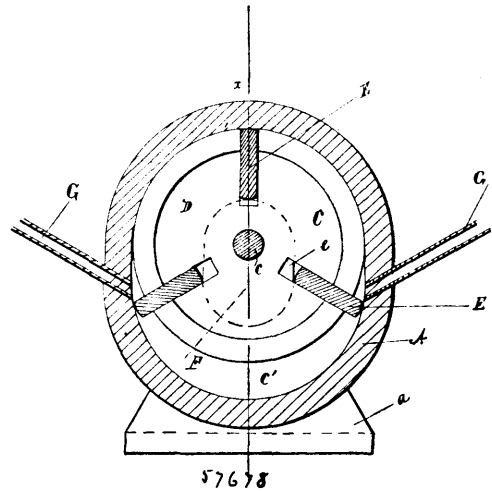
ponding shouldered spring-seated hollow nipple fitting within the bushing, an expansible packing between the nipple shoulder and the spring, an annulus of elastic material fitted to the outer end of the nipple and a protecting ring between said annulus and the bushing. 8th. A coupler head fluid outlet port, having therein a shouldered bushing, a corresponding shouldered spring-seated hollow nipple fitting within the bushing, an expansible packing between the nipple shoulder and the spring, an elastic face for the nipple, and an annular recess within which the inner end of the spring is contained, substantially as described, 9th. A coupler head for train pipes, consisting of a casting having ports or channels connected to the air and steam pipes respectively, said casting being cored out between the steam port and the adjacent air port to form a way, having an inlet and a separate outlet so as to provide for the free circulation of a current of air through the casting and between the two ports, substantially as described. 10th. A coupler head for train pipes, consisting of a casting having ports or channels connected to air and steam pipes respectively, said casting being cored out between the steam port and the adjacent air port to form a through-way extending from the front wall of the coupler head entirely through the rear wall thereof, substantially as described. 11th. A coupler head for train pipes, consisting of a casting having ports or channels connected to air and steam pipes respectively, said casting being cored out between the steam port and the adjacent air port to form a through-way extending from the front wall of the coupler head entirely through the rear wall thereof, and widening out from front to rear, substantially as described. 12th. A coupling for train pipes, consisting of duplicate coupler heads each provided with central fluid passages and outlying tongues separated from the walls of the central fluid passages by intervening mortises, said coupler heads being provided with interlocking supplemental longitudinal recesses and projections for preventing the one coupler head from tilting with respect to the other after their engagement, substantially as described. 13th. A coupling for train pipes, consisting of duplicated coupler heads each provided with central fluid passages and outlying tongues separated from the walls of the central fluid passages by intervening mortises, one tongue of each of said heads being provided with a supplemental longitudinal side projection, engaging an interlocking longitudinal recess of the other coupler head, substantially as described. 14th. A coupler head for train pipes provided with central fluid passages, outlying tongues, and a third tongue forming a part of the wall of the central fluid passages, said third tongue and one of the outlying tongues having respectively a longitudinal side projection and a corresponding recess, whereby after coupling the coupler head is prevented from tilting with respect to the co-operating coupler head, substantially as described. 15th. A coupler head having central fluid passages and outlying tongues, one of which is straight and the other inclined outwardly and both of which are separated from the walls of the central fluid passages by intervening mortises, and a third tongue forming a part of one of said walls, and having an inwardly inclined face, said third tongue being provided with a longitudinal recess, and the straight tongue being provided with a corresponding longitudinal side projection, whereby corresponding coupler heads are adapted to interlock and are held against tilting by means of said recesses and side projections, substantially as described. 16th. In a coupler for automatically connecting the steam and air pipes of railway cars, the combination of a coupler-head provided with a chamber or chambers arranged longitudinally therein and opening through the outer face of said head, the inner end of each chamber having an abutment that is integral with said head, a non-corrodible sleeve removably secured in a fixed position in each of said chambers and having a stop or shoulder in or near the outer end of its bore, a tubular joint-piece of rubber or other similar material adapted to form a fluid-tight joint with a like joint-piece, said joint-piece being fitted to slide telescopically in said sleeve exclusively, and being provided with a peripheral shoulder which by taking against the shoulder of the sleeve will limit the outward movement of the joint-piece, and a spring arranged to force said joint-piece outwardly, substantially as described. 17th. In an automatic coupler for steam and air pipes of railway cars, the combination with a coupler-head provided with one or more chambers opening through the outer face of said head, each of said chambers having a steam or air pipe leading rearwardly therefrom, and a casing secured to said head to form an enclosure for said pipes and provided with a longitudinally slotted opening, of a universal joint composed of two rings so arranged that one of said rings will encircle the other, the outer ring being provided with trunnions which are journaled in brackets suspended from the bottom of a car, and the inner ring being pivoted to the outer ring so that the axes of the two rings will be at right angles and the inner ring being provided with a guide which enters the slotted opening of the tubular-casing and guides the latter in its movement in a universal joint, and a spring encircling said casing, one end of said spring abutting against the foremost face of the inner ring and the opposite end being arranged to bear against the coupler-head, substantially as described.

**No. 57,678. Rotary Engine. (Machine rotatoire.)**

Walter F. Clements, Winnipeg, Manitoba, Canada, 5th October, 1895; 6 years. (Filed 17th September, 1897.)

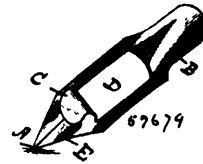
Claim.—In a rotary engine, the combination, with a cylinder eccentric in cross-section, of a revoluble piston bearing against one

side of the cylinder and forming a steam chamber on the other side, said piston being provided with radial slots and recesses in its sides,



stationary cams arranged inside the said recesses with their peripheries concentric with the periphery of the cylinder, and abutment plates slidable in the said radial slots between the said cams and cylinder, substantially as set forth.

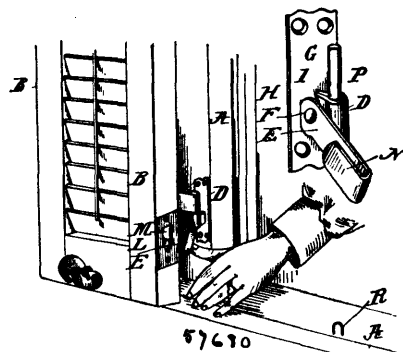
**No. 57,679. Pen. (Plume.)**



William T. Keefer, Bedford, Indiana, U.S.A., 5th October, 1897; 6 years. (Filed 17th June, 1897.)

Claim.—1st. A pen point having a portion of the metal of the body of the pen punched up and rolled down towards the point, substantially as shown and described. 2nd. An improved pen point having the head and point portions, and a portion of the metal between the said head and said point portions being punched up to provide a tongue, which tongue is rolled downward toward the point, providing a transverse reservoir, substantially as shown and described. 3rd. As an improved article of manufacture, a pen point having a point and head portion and a tongue punched from the intermediate portion and rolled down toward the point, said tongue having a split or perforation near the free end, substantially as shown and described.

**No. 57,680. Blind Fastener. (Attache de persiennes.)**

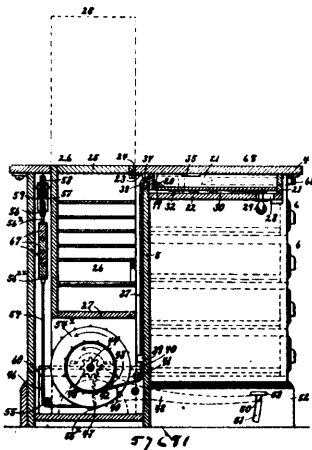


Harvey Spencer, New York, State of New York, U.S.A., 5th October, 1897; 6 years. (Filed 28th September, 1897.)

Claim.—1st. In combination with a blind, a hinge, the member<sup>s</sup> whereof are located in different horizontal planes, a lever or brace pivotally connected to the bracket of the lower member, one end of which is adapted to be swung outwardly and upwardly into en

gagement with the rear edge of the blind, and the other end into engagement with a lateral bearing surface, and a device to sustain the said lever in its operative position, for the purposes set forth. 2nd. In combination with a blind, a hinge the stationary member whereof is provided with a base plate and bracket projecting therefrom, a brace or lever pivoted to said bracket and provided with a rearwardly extending part which engages with the said base plate when in operative position, thus exerting pressure upon the blind, for the purposes set forth. 3rd. A blind fastening device, comprising a lever or brace pivoted at or near one end to the stationary member of a hinge, said stationary member having bearing surfaces adapted to engage with the lever as it approaches the horizontal position, thus relieving the pivot of strain and crowding the lever against the blind, and means to sustain the lever in its horizontal position, for the purposes set forth. 4th. A blind fastening device comprising a base plate, a bracket projecting at right angles therefrom, a lever or brace pivoted to the bracket, a surface on the base plate adapted to engage with the rear end of the lever, and a portion of the bracket adapted likewise to engage with the lever, whereby the latter is braced laterally and strain removed from its pivot, and means to maintain the lever in its operative position, for the purposes set forth. 5th. A blind fastening device, comprising a lever pivoted to a stationary device on the window casing and adapted to exert spring pressure upon the rear edge of the blind when the latter is opened, and to force the same against the side of the house or a stop interposed between the two, for the purposes set forth. 6th. In a blind fastening device, a spring acting lever or brace pivoted to the bracket of the stationary part of a hinge, bearing surface upon the said stationary part and bracket against which the lever is braced when in operative position, for the purposes set forth. 7th. A blind fastening device comprising a striker plate having an inclined or projecting surface upon the blind, and a pivoted lever fastened to the stationary part of one of the hinges which when swung outwardly into an horizontal position, engages with the inclined or projecting surface on the striker plate, for the purposes set forth. 8th. A blind fastening device comprising a striker plate having an inclined or projecting surface upon the blind, and a pivoted, spring-acting lever fastened to the stationary part of one of the hinges which, when swung outwardly into horizontal position, engages with the inclined or projecting surface on the striker plate, for the purposes set forth.

**No. 57,681. Desk. (Pupitre.)**

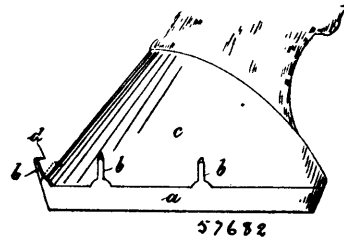


**Horace D. Hermany, Philadelphia, Pennsylvania, U.S.A.,** 5th October, 1897; 6 years. (Filed 27th September, 1897.)

*Claim.*—1st. A desk having movable pigeon-holes, mechanism for raising and lowering said pigeon-holes, means for operating said mechanism, a counterbalance for said pigeon-holes, a drawer having connection with said raising and lowering mechanism, and movable supports for said pigeon-holes when in elevated position. 2nd. A flat-top desk, having movable pigeon-holes in the rear portion thereof, connections from said pigeon-holes to a system of counterbalances, connections from the latter to a drum, a shaft upon which said drum is mounted, pinions carried by said shaft, a rack adapted to engage said pinions, connections from said rack to a treadle, a drawer supported within the desk and connections from said drawer to said drum. 3rd. A desk having movable pigeon-holes, a drawer, a drum mounted in said desk and having chain connections with said pigeon-holes and drawer, gearing connected with said drum and a lever and treadle for operating said gearing. 4th. A desk having movable pigeon-holes, a drawer with mechanism for raising or lowering said pigeon-holes, means with operating mechanism for supporting said pigeon-holes in raised position, and counterbalance-weights connected with said pigeon-holes and with said raising and lowering mechanism. 5th. A desk having movable pigeon-holes, a drawer, drums mounted in said desk, the chain 37 passing over the roller 38,

the block 39 connected with the lower end of said chain, a chain 40 connected with each of said drums, pinions secured on the shaft of said drums, and a bar with a rack at one end engaging said pinion and a treadle on the other end. 6th. A desk, having pigeon-holes, in its rear portion, a drawer having thereon means for locking said pigeon-holes when in depressed position, and connections from said drawer for raising and lowering said pigeon-holes. 7th. A desk having movable pigeon-holes, a drawer, mechanism for raising and lowering said pigeon-holes, the strip 60 connected with said pigeon-holes, the bar 56 having the chains 57 connected with its ends and passing over the pulley 58, and connected with the strip 60, the depending rods 56<sup>x</sup> with cross-bar 56<sup>xx</sup> carrying weights, and the chain 54 connecting said bar 56, and a drum of said raising and lowering mechanism. 8th. A desk having movable pigeon-holes, mechanism connected with a treadle for raising and lowering said set, a counterbalance for said pigeon-holes, a drawer having flexible connections with said raising and lowering mechanism, and movable supports for said pigeon-holes when in elevated position. 9th. A desk having a drawer and on each side thereof side drawers, bars guided on the wall of said desk, mechanism connected with said bars and engaged by said first-mentioned drawer for locking and unlocking simultaneously said side drawers, in combination with pigeon-holes in said desk, mechanism for raising and lowering said pigeon-holes, means for operating said mechanism, a counterbalance for said pigeon-holes, movable supports for said pigeon-holes, when in elevated position, and means on said first-mentioned drawer for locking said pigeon-holes, when in depressed position.

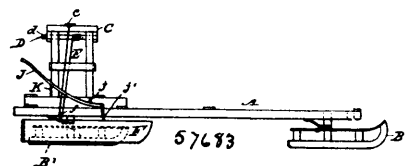
**No. 57,682. Nailless Horse-shoe. (Fer à cheval).**



**Alexander Kemény and Max Steiner, both of Neupest, Budapest, Hungary,** 5th October, 1897; 6 years. (Filed 28th September, 1897.)

*Claim.*—Horse-shoes, characterized by projections *b* arranged at the upper edges of the shoes and provided with inwardly-projecting hooks *d*, figure 1, which, after the shoe is placed in position, are bent at the under surface of the hoof against the upper side of the same, so that their points *d* should be driven into the latter side, substantially as described.

**No. 57,683. Snow-plough. (Charrue à neige.)**



**George O. Spencer, Manchester, New Hampshire, U.S.A.,** 5th October, 1897; 6 years. (Filed 8th September, 1897.)

*Claim.*—1st. In a snow-plough for highways, a plough or scraper hung at each side of an ordinary sled, a suitable frame adapted to rest upon said sled, provided with a windlass and a rope or cable in connection with each of said scrapers, each being provided with a bar placed at an angle therewith, the forward end of which is attached to the forward end of the scraper and the rear end bent at an angle, and provided with an extensible connection which is attached to the rear portion of the scraper, and means for maintaining either end of said scrapers at the desired elevation, all substantially for the purpose set forth. 2nd. In a plough for highways, a frame adapted for attachment to an ordinary sled, a plough or scraper consisting of planks hung one at each side of and at an angle with the runners of said sled, a pulley-block attached near the rear end of said scraper, a rope or cable having one end secured to the top of said frame, and the other wound around a windlass mounted in said frame, the said windlass, and means for adjusting the forward ends of said scrapers, substantially for the purpose set forth,

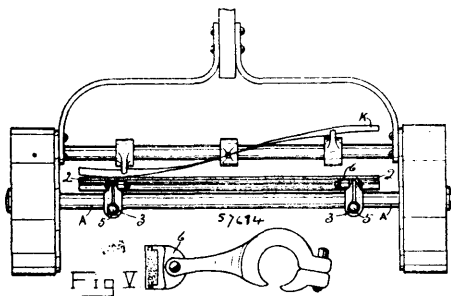
**No. 57,684. Lawn Mower Grinder.**

(*Aiguiseur de faucheuses.*)

**William W. Boughner, Hamilton, Ontario, Canada,** 5th October, 1897; 6 years. (Filed 27th September, 1897.)

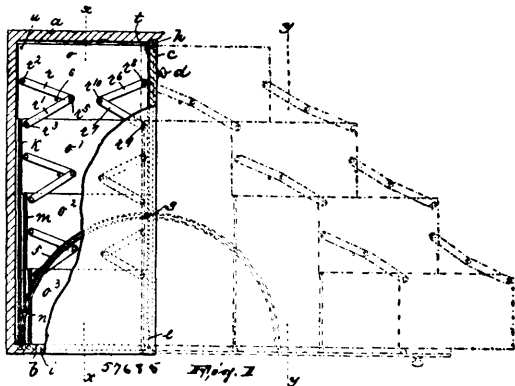
*Claim.*—1st. A lawn mower grinder of the character described, consisting of an emery bar having rear lugs, clips having lugs to

hinge or pivot to lugs of said emery bar, said clips capable of adjustment, and fastening to a binding bar or axle of a lawn mower by



means of set screws, as described. 2nd. A lawn mower knife grinder of the character described, consisting of an emery bar having lugs pivoted to the lugs of clips which are adjustable on and fastened to the binding bar or axle of a mower by means of set screws, springs on said pivots to engage with the outer rear edge of said emery bar to give certain tension to same, as described. 3rd. A lawn mower grinder, consisting of an emery bar in a casing having rear lugs to hinge or pivot to lugs on clips which are suitable for fastening to mower binding bars of a non-circular section, and secured thereto by means of its inner lips and bolt, as described. 4th. The combination with a lawn mower having a revolving axle, of clips in parts for attachment to and capable of adjustment for said axle, and an emery bar pivoted to and capable of being fastened to the outer ends of said clips, in position to operate on the revolving knives of the mower, as described.

**No. 57,685. Display Cabinet. (Cabinet de montre.)**

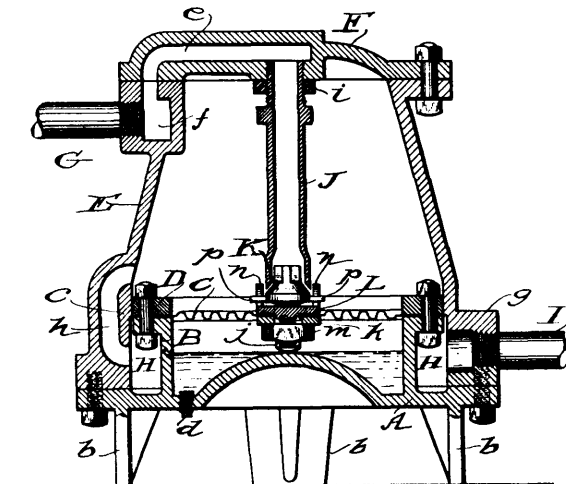


Alfred Gartner, Paterson, New Jersey, U.S.A., 5th October, 1897; 6 years. (Filed 29th September, 1897.)

*Claim.*—1st. The combination with a cabinet having its bottom provided with a central groove or recess, of a door or front hinged to the front portion of said bottom and provided with a groove or recess communicating and in alignment with the groove or recess in said bottom, a series of drawers in said cabinet, means for pivotally connecting said drawers, a leg downwardly projecting from the rear portion of each drawer and provided at its lower end with an enlargement adapted to slide in the grooves or recesses of the bottom and hinged front or door of the cabinet, substantially as and for the purposes described. 2nd. The combination with a cabinet having its bottom provided with a central groove or recess, of a door or front hinged to the front portion of said bottom and provided with a groove or recess communicating and in alignment with the groove or recess in said bottom, a series of drawers in said cabinet, means for pivotally connecting said drawers, a leg downwardly projecting from the rear portion of each drawer and provided at its lower end with an enlargement engaging the groove or recess in the bottom of the cabinet, and means for preventing the entire withdrawal of the drawers from the cabinet, substantially as described. 4th. The combination with a cabinet having its bottom provided with a central groove or recess, of a door or front hinged to the front portion of said bottom and provided with a groove or recess communicating and in alignment with the groove or recess in

said bottom, a series of drawers in said cabinet, means for pivotally connecting said drawers, a leg downwardly projecting from the rear portion of each drawer and provided at its lower end with an enlargement engaging the groove or recess in the bottom of the cabinet, a pin inwardly projecting from the front portion of each side of the cabinet, and a slotted arc shaped link engaging its respective pin and secured with its forward end to the hinged front or door, substantially as described.

**No. 57,686. Steam Trap. (Purge de tuyau de vapeur.)**

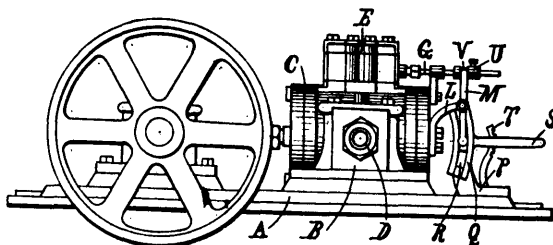


57686

Arthur J. Bayley, Milwaukee, Wisconsin, U.S.A., 5th October, 1897; 6 years. (Filed 27th September, 1897.)

*Claim.*—1st. A steam-trap, comprising a base provided with a fluid-reservoir, having an expansible diaphragm for its cover, a closed shell on the base provided at its lower end with a pipe-connecting hollow boss, and having such dimensions that an annular chamber is formed adjacent to the reservoir open to said boss, this chamber and that portion of the shell above the diaphragm being in communication, a drain-pipe hung within said shell, and a valve for this pipe mounted on the diaphragm. 2nd. A steam-trap, comprising a base having a dome-like indentation surrounded by a wall surmounted by an expansible diaphragm, a closed shell on the base of such dimensions that a chamber is formed between it and the reservoir surrounding the latter, there being an inlet to the chamber, communication of the latter with that portion of the shell above the diaphragm and an outlet from said shell, a pipe communicating with the outlet from within the aforesaid shell, and a pipe-valve mounted on said diaphragm. 3rd. A steam-trap, comprising a base provided with a fluid reservoir surmounted by an expansible diaphragm, a shell on the base provided with an inlet and an outlet, the dimensions of the shell being such that an annular chamber is formed between it and the reservoir open to said inlet, this chamber being in communication with that portion of said shell above the diaphragm, a shell-cover provided with a port leading to said outlet, a pipe depending from the cover in communication with the latter port, and a pipe valve mounted on said diaphragm. 4th. A steam-trap having a water-escape controlled by a valve provided with lateral lugs, a valve-holder comprising a disc having hook-arms engaged by the valve lugs, and suitable means for seating and unseating the valve. 5th. A steam-trap having a water-escape controlled by a valve provided with lateral lugs, a valve-holder comprising a disc having hook-arms engaged by the valve-lugs and a depending shank held in an expansible diaphragm, and a stop opposing said shank to limit contraction of the diaphragm.

**No. 57,687. Oscillating Engine. (Machine oscillante.)**

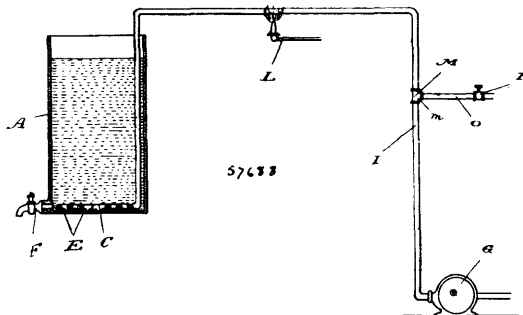


57687

James McCartney, Bessemer, Alabama, U.S.A., 5th October, 1897; 6 years. (Filed 27th September, 1897.)

*Claim.*—The oscillating cylinder, and the slide-valve, having its stem projecting from the rear end of the cylinder, combined with a bracket secured to the end of the cylinder, a rock-lever pivoted on the upper end of the bracket, having its upper end forked to engage with the valve-stem and its lower end provided with a pin or roller, a stand P, valve-operating link pivoted on the stand, and provided with a curve groove, a handle secured directly to the link and extending in a line with the cylinder, and a segment to lock the handle in place, substantially as described.

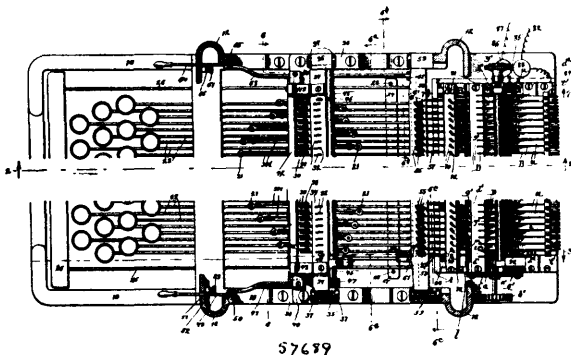
**No. 57,688. Process of Obtaining By-Products from Milk.** (*Procédé pour obtenir des produits du laits.*)



Walter Cole, Toronto, Ontario, Canada, 6th October, 1897; 6 years. (Filed 2nd July, 1897.)

*Claim.*—1st. A process of obtaining by-products from buttermilk, skimmed milk and whole milk, which consists in subjecting the milk to a natural or artificial process of fermentation, and then passing through it air at a comparatively high temperature, substantially as specified. 2nd. A process for obtaining by-products from buttermilk, skimmed milk and whole milk, which consists in subjecting the milk to a natural or artificial process of fermentation, then raising the milk to a temperature ranging preferably from 85 to 90 degrees Fahrenheit, and passing through it air at a comparatively high temperature, substantially as specified.

**No. 57,689. Typewriter and Telegraphic Transmitter.** (*Transmetteur de cloigraphes et télégraphes.*)



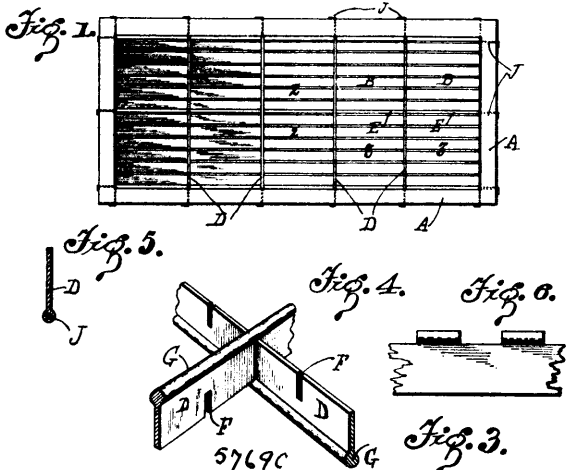
The World Flash Co., Chicago, Illinois, U.S.A., assignee of Charles E. Yetman, Oak Park, Illinois, both in the U.S.A., 6th October, 1897; 6 years. (Filed 8th September, 1896.)

*Claim.*—1st. The combination with the individual finger-key and with the transmitter switch shifter corresponding thereto and actuated thereby, of a mechanical connector device suitably extended between said key and shifter to interlock the same and a throw-off under the operator's control to cast said connector at will and free the shifter from its finger-key, substantially as described. 2nd. The combination with the individual finger-key and with the transmitter switch shifter corresponding thereto and actuated thereby, of the mechanical connector pivoted to said finger-key and interlocking with its shifter and a throw-off under the operator's control to cast said connector at will and free the shifter from its finger-key, substantially as described. 3rd. The combination with the finger-key and with the separate transmitter switch shifter corresponding thereto and actuated thereby, of the mechanical connector extended from said key and interlocked in loose one-way engagement with said shifter, during descent of the key, whereby said key moves the shifter in unison from the normal while both return separately thereto, substantially as described. 4th. The combination with the individual finger-keys and with the corresponding series of transmitter switch shifters, of the set of mechanical connectors extended between and interlocking the respective keys and shifters to actuate any selected key and shifter together and a

throw-off under the operator's control to simultaneously dis-unite in common plural shifters from their finger-keys and connectors, substantially as described. 5th. The combination with the individual finger-keys and with the series of transmitter switch shifters corresponding thereto and actuated thereby, of the mechanical connectors uniting each shifter with its finger-key, and a throw-off common to several connectors, and under the operator's control to cast said connectors in unison at will and free the shifters from their finger-keys, substantially as described. 6th. The combination with the individual finger-keys and with the corresponding series of transmitter switch shifters, of the set of separable mechanical connectors extended between the respective keys and shifters to actuate any selected key and shifter together, and a throw-off common to several connectors and under the operator's control to cast said separable connectors in unison at will and free the shifters from their finger-keys, substantially as described. 7th. The combination with the individual finger-keys, of the series of transmitter switch shifters corresponding thereto, mechanical connector devices extended from said keys to the shifters to actuate the selected shifter in unison with its companion key and a throw-off within the operator's control to simultaneously dis-unite plural finger-keys from the corresponding switch shifters, substantially as described. 8th. The combination with the series of finger-keys and with the corresponding series of transmitter switch shifters actuated thereby, of the mechanical connectors pivoted to the respective keys and interlocking with the shifters and a throw-off under the operator's control common to several connectors to cast the same at will and free the shifters from the keys, substantially as described. 9th. The combination with the individual key-levers, of the series of upright transmitter switch shifters corresponding thereto and actuated in right-line movement thereby, the mechanical connectors uniting each shifter with its lever and a throw-off common to several connectors and under the operator's control to cast said connectors in unison at will and free the shifters from their key-fingers, substantially as described. 10th. The combination with the individual finger-keys and their type-bars, of the corresponding series of switch shifters at the electric transmitter, the mechanical connectors extended from said keys and interlocked in loose one-way engagement with said shifters during descent of the respective keys, the rotating shaft having circuit make-and-break devices thereon severally under control from the separate shifters and a set of latches, one for each shifter, and released separately by the rotating shaft to restore the selected shifter to normal position free and distinct from its finger-key, substantially as described. 11th. The combination with the individual finger-keys, and their type-bars, of the corresponding series of switch shifters at the electric transmitter, the mechanical connectors extended from said keys and interlocked in loose one-way engagement with said shifters during descent of the respective keys, the rotating shaft having circuit make-and-break ring sustained loosely and intermittently thereon under control from said shifter, a latch to hold said shifter depressed and having a trip pawl thereon projected by said shifter into the path of the make-and-break ring and engaging at intervals therewith to restore the selected shifter to normal position free and distinct from its finger-key, substantially as described. 12th. The combination with the individual finger-keys and with their type-bars, of the electric transmitter having a series of shifters corresponding to the several keys, a mechanical connector extended between each shifter and its key, and a throw-off common to several connectors whereby said shifters may be engaged with or disengaged in unison from the finger-keys appropriate thereto, substantially as described. 13th. The combination with the individual finger-keys and with their type-bars, of the electric transmitter comprising a rotating shaft, a set of symbol disks actuated thereby and a series of shifters corresponding to the several finger-keys and respectively controlling the separate transmitter disks, a mechanical connector extended between each shifter and its finger-key, and a throw-off common to several connectors whereby said shifters may be engaged with or disengaged in unison from the finger-keys appropriate thereto, substantially as described. 14th. The combination with the individual finger-keys and with their type-bars, of the electric transmitter comprising a rotating shaft, a set of symbol disks mounted loosely about said shaft and carried intermittently thereby, a series of shifters corresponding to the several finger-keys and respectively sustaining the separate symbol disks free from the shaft, a mechanical connector extended between each shifter and its key and a throw-off common to several connectors to engage or disengage them in unison, substantially as described. 15th. The combination with the individual key-levers, the series of trippers carried thereby and the keeper common to said trippers to shift the same, of the series of jacks engaged by said trippers, the pivoted type-bars and the links uniting said bars and jacks, substantially as described. 16th. The combination with the individual key-levers having pivoted trippers thereon, of the series of jacks to control the type-bars, the keeper common to said trippers and suitable means for moving said keeper whereby the trippers are thrown into or out of engagement with the jacks, substantially as described. 17th. The combination with the individual key-levers and its type-bar, of the rotating shaft at the electric transmitter, the symbol disk mounted loosely about said shaft and carried intermittently thereby, a switch shifter sustaining said disk free from the shaft and connector mechanism extended from the key-lever and engaging said shifter loosely to throw the same whereby the lever and shifter move in unison from normal position but return sep-

arately thereto, substantially as described. 18th. The combination at the electric transmitter, with a series of switch shifters and with the rotating shaft having circuit make and-brake devices thereon, of a set of latches to engage with and hold said shifters depressed, the trip pawls carried thereby to encounter the rotating shaft and the "repeat" bar extended at will into the path of the trip pawls to detain the same from contact with said shaft, substantially as described. 19th. The combination with the individual finger-keys and with the type-bars operated therefrom, of the intermediate mechanism connecting said keys and type-bars and suitable means common to separate companion parts of said mechanism to throw the same in unison whereby said finger-keys and type bars are engaged or disengaged from action, substantially as described. 20th. The combination with the individual finger-keys and with the series of trippers for the type-bars, a leader to separately depress the universal-bar of the machine, and means to shift said keeper and separate lever in unison, substantially as described. 21st. The combination with the series of trippers for the type-bars and with the keeper common to said trippers, of the universal spacing bar for the machine, a separate lever to depress said universal bar, and suitable means intermediate the keeper and lever to shift the same in unison, substantially as described. 22nd. The combination with the individual finger-keys and with the switch shifters at the transmitter operated therefrom, of the intermediate mechanism connecting said keys and shifters and suitable means common to separate companion parts of said mechanism to throw the same in unison whereby said finger-keys and shifters are engaged or disengaged from action, substantially as described. 23rd. The combination with the individual finger-keys and with the corresponding type-bars actuated therefrom, of the series of upright reciprocating jacks interposed between said keys and bars and suitable means extended oppositely from said jacks and uniting the same with said keys and bars respectively, substantially as described. 24th. The combination with the individual finger-keys and with the corresponding type-bars actuated therefrom, of the series of upright reciprocating jacks located between them, the links pivotally joining said jacks and type-bars, and suitable means extended oppositely from said jacks to unite them to the finger-keys at practically uniform distances throughout, substantially as described. 25th. The combination with the individual finger-keys and with the corresponding type-bars arranged in basket-form and actuated from said keys, of the set of upright reciprocating jacks located intermediate said keys and bars, the links pivotally uniting said jacks with the type-bars and suitable devices extended oppositely from said jacks to unite them with the finger-keys, substantially as described. 26th. The combination with the key-levers and with the corresponding type-bars arranged in basket-form and actuated from said levers, of the set of upright reciprocating jacks located intermediate said keys and bars, the links pivotally uniting said jacks with the type-bars and the trippers extended oppositely from said jacks and united to the respective key-levers at practically uniform distances from the fulcra thereof and the universal bar operated by said levers, substantially as described. 27th. The combination with the key-levers and with the corresponding type-bars arranged in basket form and actuated from said levers, of the set of upright reciprocating jacks located intermediate said keys and bars, the links pivotally uniting said jacks with the type-bars and the trippers extended oppositely from said jacks and united to the respective key-levers at practically uniform distances from the fulcra thereof, substantially as described.

**No. 57,690. Method of Mounting Tiles.**  
(Méthode de monter les tuiles.)

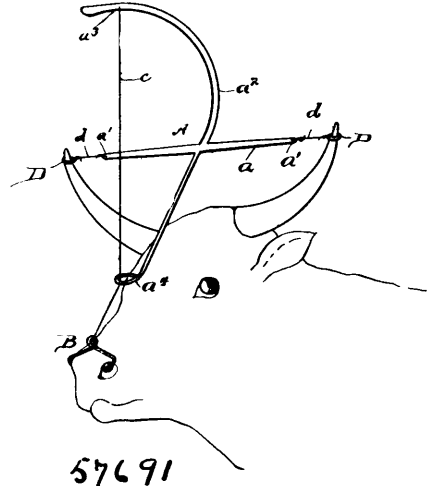


William H. Winslow, Chicago, Illinois, U.S.A., 6th October, 1897; 6 years. (Filed 13th July, 1897.)

*Claim.*—1st. A prism plate comprising a series of prism lights each having a receiving surface on one side and a prism surface on

the other, and a supporting net or frame composed of strips beaded on one edge, the beads on one set of strips being placed on the receiving side of the prism lights at an angle to the prisms, and the beads on the other set of strips placed on the prism side of the sections parallel to such prisms. 2nd. A plate comprising a series of substantially flat sections combined with a supporting net or frame consisting of strips beaded on one edge, the strips running in one direction having the beads on one side of the sections, and the strips running across the first-mentioned strips having their beads on the opposite sides of said sections, and the whole secured together substantially as shown and described.

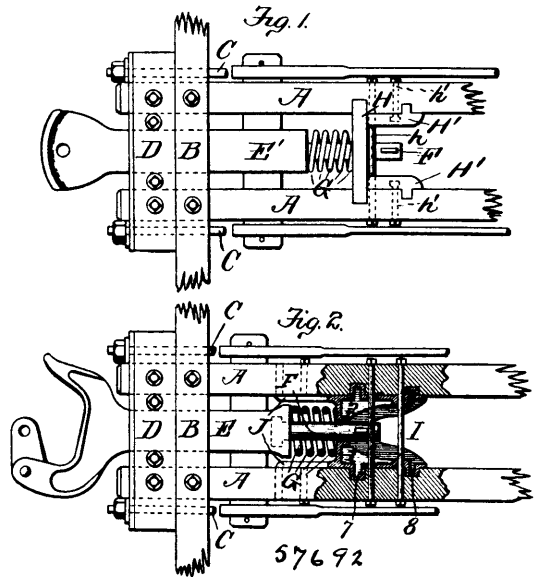
**No. 57,691. Animal Poke. (Carcan.)**



John H. Moore, Hye, Texas, U.S.A., 6th October, 1897; 6 years. (Filed 1st October, 1897.)

*Claim.*—In an animal-poke and safety device for horned cattle, the combination of the short horizontal arm adapted to be pivotally connected to the horns, the upright forwardly curved arm rigidly secured to said horizontal arm, the wire or wires secured near the upper end of said curved arm, and engaging the lower end of said curved arm, and passing thence to a nose ring to which it is detachably connected, said wire being in front of the horns to prevent goring.

**No. 57,692. Draft Lug. (Oreilles de barre d'attelage.)**



The Western Railway Equipment Company, assignee of Andrew G. Steinbrenner, all of St. Louis, Missouri, U.S.A., 6th October, 1897; 6 years. (Filed 18th September, 1897.)

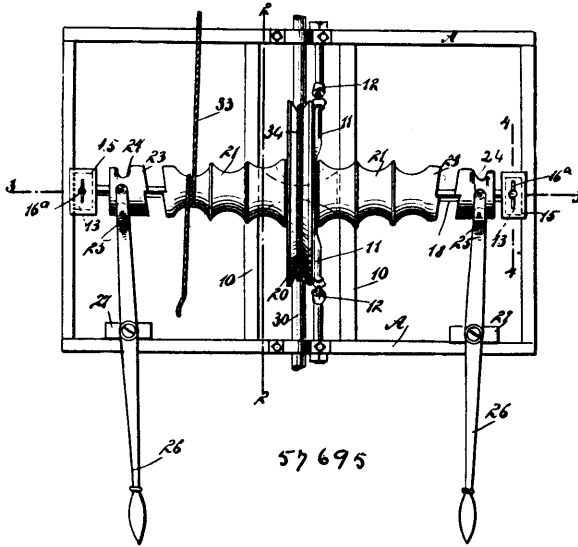
*Claim.*—1st. The combination, with draft timbers which are formed with recesses for a follower-plate and lugs, of a casting formed with an opening for the tail-bolt, the front wall of said





combination of a supporting frame A provided with separated uprights  $a, a^1$ , one of which is formed with engaging shoulders  $a^4, a^5$ , arranged one above the other, said supporting frame being also provided with a movable extension  $a^6$  having one of its extremities hinged to the main portion of the supporting frame, a top B detachably engaged with the supporting frame, said top having one of its ends interposed between the shoulders  $a^4, a^5$ , and its lower face provided with shoulders  $b$  engaged with the adjacent faces of the uprights  $a, a^1$ , and a brace  $B^1$  having its lower end detachably engaged with the free end of the extension  $a^6$  and its upper end hinged to the top B, substantially as and for the purpose specified.

**No. 57,695. Device for Operating Hay-forks.**  
(Appareil à actionner les fourches à foin.)



John Fremont Tuttle, Springdale, Washington, U.S.A., 6th October, 1897; 6 years. (Filed 1st October, 1897.)

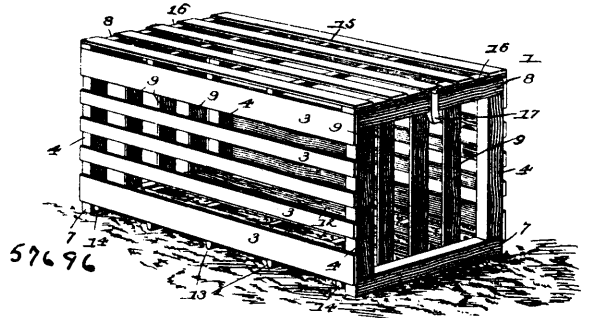
*Claim.*—1st. In a machine for controlling hay-forks and like devices, a driving-shaft, a pulley located on said shaft, a guide-pulley located beneath the said shaft-pulley, and said guide-pulley being made in two sections, one section being of greater diameter than the other, the section of the smallest diameter being conical, whereby a shoulder is formed between the two sections, the said guide-pulley being placed at an angle to the shaft-pulley, a driving-pulley located at an angle to the guide-pulley and beneath the same, being provided with a peripheral V-groove, and a belt engaging with the three pulleys, substantially as and for the purpose set forth. 2nd. In a machine for operating hay-forks and the like, the combination with a line-shaft, a pulley thereon, a conical or stepped pulley loose on the shaft, and a clutch for locking the conical or stepped pulley to the shaft, of a guide-pulley below the pulley of the said shaft, said guide-pulley being in two sections with shoulder between them, one section being larger than the other and the smaller section being conical, a grooved driving-pulley below at right angles to the guide-pulley and a belt passing around the said pulleys, the said belt being crossed between the guide-pulley and the pulley of the line-shaft, substantially as described. 3rd. In a machine for operating hay-forks and like articles, the combination, with a line-shaft, a driving-pulley secured on the shaft, conical or stepped pulleys mounted to turn on the shaft at each side of the driving pulley, the face of each stepped or separated pulley-partition being concave, a clutch adapted one for engagement with each stepped or conical pulley, and shifting devices for operating the said clutches, of a drive-shaft, a guide-pulley secured on said drive-shaft, beneath the driving-pulley of the line-shaft, and at right angles to the line-shaft, a second pulley located above the pulley of the drive-shaft, said guide-pulley being conical and having an abrupt shoulder at its small end being placed at right angles thereto, and a belt passed around the pulley on the line-shaft, crossed and carried over the lower pulleys, as and for the purpose specified.

**No. 57,696. Folding Crate.** (Boite pliante.)

Ezra A. Armstrong and William N. Willard, both of Sarnia, and Howard Hotchkiss, Lambertville, all in the State of Michigan, U.S.A., 6th October, 1897; 6 years. (Filed 29th September, 1897.)

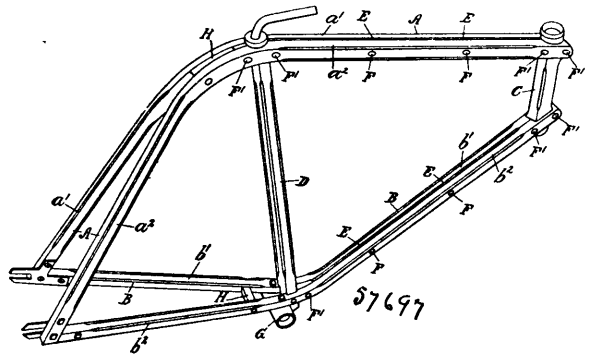
*Claim.*—1st. In folding crates, the combination of the end sections provided with top and bottom bars having sockets, the side sections having vertical end bars or posts provided with pins or dowels fitting in said sockets, whereby the body of the crate is adapted to fold with the end sections extending parallel with and interposed between said side sections, and removable bottom and top or cover sections, substantially as described. 2nd. In folding crates, the combination

of the end sections provided with top and bottom bars having sockets, the side sections having vertical end bars or posts provided with



pins or dowels fitting in said sockets and transverse cleats on the inner sides of said bottom bars, whereby the body of the crate is adapted to fold with the end sections extending parallel with and interposed between said side sections, a removable bottom section adapted to rest on said transverse cleats, and a removable cover provided with fastening means to engage the top cross-bars of the end sections, substantially as described.

**No. 57,697. Bicycle Frame.** (Cadre de bicycles.)

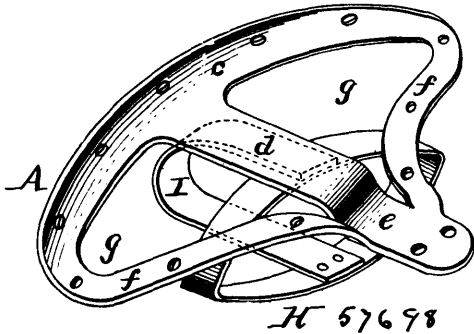


William Ross, Sarnia, Ontario, Canada, 7th October, 1897; 6 years. (Filed 25th July, 1896.)

*Claim.*—1st. The upper and lower frame sections A and B, each formed of two separate and independent, spaced apart strips of wood  $a^1, a^2$  and  $b^1, b^2$ , respectively, the rear ends of said strips being spread apart and connected to one another to receive the rear wheel, and said frame sections A and B intersecting or crossing and connected to and in combination with the wooden front and diagonal sections C and D, substantially as and for the purpose set forth. 2nd. The upper and lower frame sections A and B, each formed of two separate and independent strips of wood  $a^1, a^2$  and  $b^1, b^2$  respectively, the washers E, and the stays or braces H, the rear ends of said strips being spread apart and connected to one another to receive the rear wheel, and said frame sections A and B intersecting or crossing and connected to and in combination with the wooden front and diagonal sections C and D, substantially as and for the purpose set forth. 3rd. The wooden frame-section C, in which the sockets  $c^1$  and  $c^2$  are formed, in combination with the upper and lower frame sections A and B, each formed of two separate and independent strips of wood  $a^1, a^2$  and  $b^1, b^2$  respectively, and with the reduced portions  $a^6$  and  $b^6$  respectively, and means for clamping or otherwise securing said reduced portions  $a^6$  and  $b^6$  in said sockets  $c^1$  and  $c^2$  respectively, substantially as and for the purpose set forth. 4th. The wooden front section C, in which the sockets or recesses  $c^1$  and  $c^2$  are formed, and the wooden diagonal section D, in which the reduced portions  $d^1$  and  $d^2$  are formed, and which is provided with the shoulders  $d^3$  and  $d^4$ , in combination with the upper and lower frame sections A and B, each formed of two separate and independent strips of wood  $a^1, a^2$ , and  $b^1, b^2$  respectively, and with the sockets or recesses  $a^6$  and  $b^6$  respectively, and said strips  $a^1, a^2, b^1, b^2$ , and diagonal section D having the reduced portions  $a^6, b^6, d^1$  and  $d^2$  respectively, means for clamping or otherwise securing said reduced portions  $a^6, b^6, d^1$  and  $d^2$  in the sockets or recesses  $c^1, c^2, a^6$  and  $b^6$  respectively, the washers E, and stays or braces H, substantially as and for the purpose set forth. 5th. The upper and lower frame sections, each formed in two parts A,  $A^1$ , and B,  $B^1$  respectively, and each part formed of two separate and independent, spaced apart strips of wood  $a^1, a^2$ , and  $b^1, b^2$  respectively, the section B formed with the curved portion  $B^2$ , and said parts A,  $A^1$ , and B,  $B^1$  intersecting or crossing and connected to one another and intersecting or crossing and connected to and in combination with

the wooden front and diagonal sections C and D, substantially as and for the purpose set forth. 6th. The upper and lower frame sections, each formed in two parts A, A<sup>1</sup>, and B, B<sup>1</sup> respectively, and each part formed of two separate and independent strips of wood a<sup>1</sup>, a<sup>2</sup>, and b<sup>1</sup>, b<sup>2</sup> respectively, the section B formed with the curved portion B<sup>2</sup>, the washers E, and the stays or braces H, and said parts A, A<sup>1</sup>, and B, B<sup>1</sup> intersecting or crossing and connected to one another and intersecting or crossing and connected to and in combination with the wooden front and diagonal sections C and D, substantially as and for the purpose set forth.

**No. 57,698. Velocipede Seat or Saddle.**  
(*Siège ou selle de vélocipèdes.*)

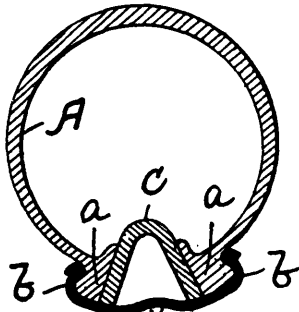


H 57698

Alfred Ernest Ames, Toronto, Ontario, Canada, 7th October, 1897; 6 years. (Filed 20th April, 1897.)

*Claim.*—1st. A velocipede seat or saddle having its rear edge raised above the main portion of the seat or saddle and its forwardly projecting central portion depressed below the level of such main portion, substantially as set forth. 2nd. A frame for a velocipede seat or saddle composed of an upturned or raised rear bar, a longitudinal central bar having its front portion depressed below its main portion, and side bars extending from the ends of the rear bar forwardly and inwardly to the sides of said depressed front portion, substantially as set forth. 3rd. The combination with a velocipede seat or saddle, of a spring support composed of an elliptical spring arranged transversely and a half elliptical spring arranged longitudinally, substantially as set forth. 4th. The combination with a velocipede seat or saddle, of a spring support composed of an elliptical spring arranged transversely underneath the saddle, and a half elliptical spring arranged longitudinally in rear of said transverse spring and secured with its upper and lower front ends to the upper and lower parts of said transverse spring, substantially as set forth. 5th. The combination with a velocipede saddle or seat having a rigid frame which is provided with a longitudinal central member, of a spring support provided with a longitudinal half elliptical spring arranged underneath said central member of the saddle frame and supporting the same, and a transverse spring arranged at the front of said longitudinal spring, substantially as set forth.

**No. 57,699. Pneumatic Tire.**  
(*Bandage pneumatique.*)



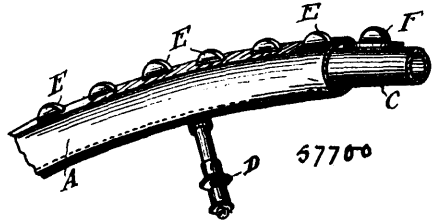
B 57699

Stuart Bunting, Birmingham, Warwick, England, 7th October, 1897; 6 years. (Filed 31st July, 1897.)

*Claim.*—1st. A single tube pneumatic tire comprising a tube divided circumferentially on its inner side and having its edges or margins enlarged to adapt them to engage with the sides of the wheel rim, and an arched-shaped hoop or band adapted to lie between the edges or margins of the tire and by its transverse elasticity both keep the edge of the tire engaged with the wheel rim and form an air-tight joint between the said edges, as set forth. 2nd. A single tube pneumatic tire comprising a tube divided circumferentially on its inner side and having enlarged edges or margins adapted to engage with the sides of the wheel rim, and of a trans-

versely flexible hoop or band of an arch-shape in cross section lying between the enlarged edges of the tire, one side of the said arch-shaped hoop or band being attached to one of the enlarged edges of the tire, as set forth. 3rd. In combination with a divided single tube pneumatic tire, the enlarged edges of which engage with the sides of the wheel rim, of an arch-shaped hoop or band lying between the divided edges of the tire and adapted to be compressed by the said edges, and of a wheel rim having one or two grooves to receive the feet of the arch-shaped band, as set forth.

**No. 57,700. Tires for the wheels of Cycles, Omnibuses, Wagons, Railway Carriages, etc.**  
(*Bandage pour roues de cycles etc.*)

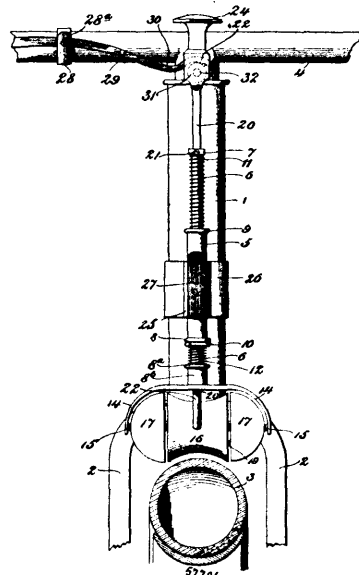


57700

William Herbert Sewell, Diamond, Coleraine, Ireland, 7th October, 1897; 6 years. (Filed 10th September, 1897.)

*Claim.*—1st. In the tires of the wheels of cycles, omnibuses, wagons, railway carriages, and other vehicles constructing these of a hollow rim or felloe in which there is enclosed either in one continuous piece or in sections a pneumatic tube or chamber provided with an inflating or deflating air valve or valves and with sections or segments of any convenient shape provided with suitable flanges, and which segments are free to work on, into or against the pneumatic chamber the said segments being placed round the rim so as to form either a continuous circle or spaced apart so as to reduce the ground contact or friction, substantially as and for the purpose hereinbefore described and illustrated on the accompanying sheet of drawings. 2nd. Pneumatic tires for cycles and other vehicles constructed substantially as described and illustrated in figure 5 of the accompanying sheet of drawings.

**No. 57,701. Combined Brake and Bell for Bicycles.**  
(*Frein et cloche de bicycles.*)



Almy Le Grand Pierce, Pittsburg, Pennsylvania, U.S.A., 7th October, 1897; 6 years. (Filed 10th September, 1897.)

*Claim.*—1st. The combination with a depressible brake-rod, and a spring for elevating the same, of a revoluble brake-shoe supported in the path of and adapted to be depressed by the rod, and an alarm-bell located adjacent to and adapted to be sounded by the shoe when depressed by the rod and in contact with the wheel of a bicycle. 2nd. The combination with a depressible brake-rod bifurcated at its lower end and a spring for normally elevating the same, of a revoluble brake-shoe loosely embraced by said bifurcation and adapted to be depressed with the rod into frictional contact with the wheel of a bicycle, and an alarm-bell located adjacent to the shoe and having its tripping mechanism adapted to be operated by

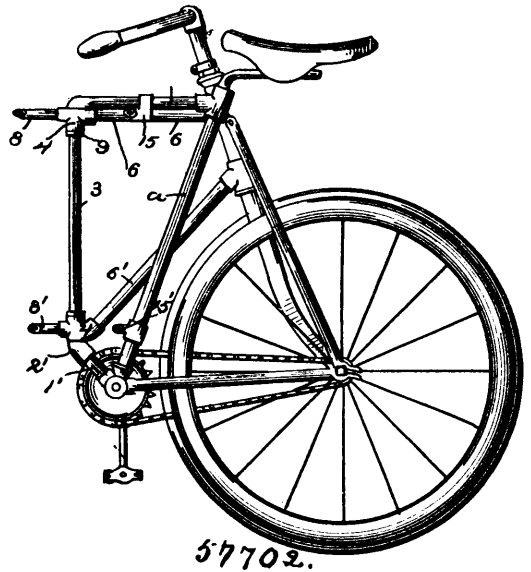
the shoe when in contact with the wheel. 3rd. The combination with a brake rod adapted to be depressed and terminating at its lower end in a bifurcation, of a sleeve for supporting the rod terminating at its lower end in a bifurcation at a right angle to that of the rod, a bell, and a brake-shoe adapted to operate the same revolvably supported by the bifurcation of the sleeve in the path of the rod, and a spring for normally elevating the rod so that its bifurcation is out of contact with the shoe. 4th. The combination with a depressible brake-rod and a guide for the same, of a spring for elevating the rod, a revolvable brake-shoe supported in the path of and adapted to be depressed by the rod, and an alarm-bell located adjacent to and adapted to be sounded by the shoe when depressed and in contact with the wheel of the bicycle. 5th. The combination with a depressible brake-rod terminating in a lower bifurcation, a guide for the rod and a spring for normally raising the rod, of a revolvable shoe loosely embraced by the bifurcation and normally supported out of contact with the bifurcation of the rod, a shaft for supporting the shoe, trip-pins carried by the ends of the shoe, and alarm-bells supported by said shaft at the opposite ends of the shoe and having their trip-mechanisms located in the paths of the pins of the shoe. 6th. The combination with the case adapted to be secured to the frame of a bicycle, a sleeve located in the case, a spring encircling the sleeve and adapted to normally elevate the same, a brake-rod bifurcated at its lower end, located in the sleeve and secured thereto, of a revolvable shoe supported in the path of the bifurcation and loosely embraced thereby, and alarm-bells located opposite the ends of the shoe and having trip-mechanisms adapted to be operated by pins projecting from the ends of the shoe. 7th. The combination with a depressible brake-rod terminating at its lower end in a bifurcation, a sleeve adjustably mounted thereon, a guide or casing receiving the sleeve and spring interposed between the upper end of the casing and the end of the sleeve for normally raising the latter and the brake-rod, of a revolvable brake-shoe, a movable support for the same carried by the sleeve, said brake-shoe being arranged in the path of and normally out of contact with the lower bifurcated end of the rod, pins carried by the shoe, and bells having trips located in the paths of the pins. 8th. The combination with a bicycle-head, of a bored case secured thereto above the fork, a sleeve located loosely therein and having a collar at its upper end, a short sleeve having its lower end bifurcated and diverged yieldingly supported on the lower end of the sleeve. a shaft carried thereby above the wheel of the bicycle, a brake-shoe revolvably mounted on the shaft and provided with pins, opposite bells carried by the shaft and having their trips located in the paths of the pins, a spring interposed between the upper end of the case and the upper end of the sleeve and encircling the latter, and a depressible rod adjustably supported in the sleeve and terminating below the same in a fork loosely embracing the shoe. 9th. The combination with the head of a bicycle, of a bored case secured thereto, a sleeve mounted loosely therein and extending above and below the same, a short sleeve yieldingly supported at the lower end of the sleeve and at its lower end terminating in a diverged bifurcation, a shaft connecting the bifurcation, a brake-shoe revolvably mounted thereon and provided at its ends with trip-pins, opposite bells having their trips arranged in the paths of the pins and mounted on the shaft, a collar at the upper end of the sleeve, a spring arranged thereon between the collar and the upper end of a case, a rod extending through the sleeve and terminating below the same in a bifurcation loosely embracing the shoe, said rod at its upper end terminating in a presser-head, and a lever loosely fulcrumed on the handle-bar of the bicycle and at its inner end loosely connected to the rod. 10th. The combination with a bicycle-head, of a bicycle brake-lever fulcrumed thereon and having its inner end curved, the brake-rod terminating at its lower end in a bifurcation and at its upper end provided with a head below which it is recessed to receive the inner end of the lever, a wheel in the recess upon which the lever rests, a sleeve encircling the rod and terminating above the same in a bifurcation, a shaft carried by said latter bifurcation, a concealed revolvable brake-shoe carried by the shaft and provided with trip-pins extending from its ends, opposite bells mounted on the shaft and having their trips located in the paths of the pins, a collar at the upper end of the sleeve, a binding-screw passed through the same and impinging on the rod, and a spring encircling the sleeve between the case and collar and serving to normally elevate the sleeve and rod. 11th. The combination with a depressible brake-rod, and a spring for yieldingly supporting the same in a raised position, of a guide for securing the rod to the head of a bicycle, a revolvable brake-shoe supported over the front wheel of the bicycle and in the path of the brake-rod, whereby when said rod is depressed it depresses and locks the shoe for the purpose of braking the wheel.

**No. 57,702. Folding Bicycle. (Bicycle pliant.)**

Michael Bartholomew Ryan, Danbury, Connecticut, U.S.A., 7th October, 1897; 6 years. (Filed 10th September, 1897.)

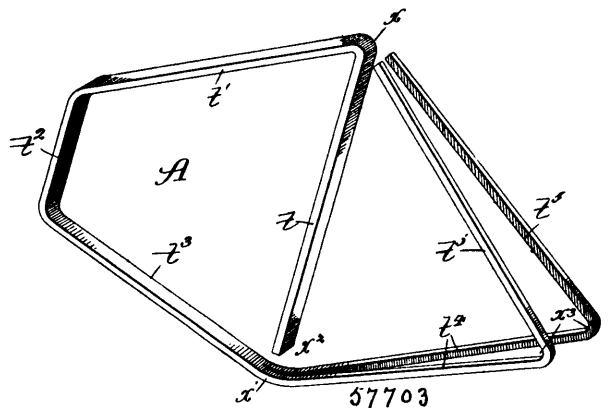
*Claim.*—1st. A bicycle comprising in its construction a frame formed in two sections hingedly connected together, one of said sections being provided with a bolt and the other section with a keeper for the bolt, the said bolt and keeper extending in a substantially horizontal direction and located at a distance from the hinged connection, and the bolt casing and keeper being adapted to closely meet, to insure rigidity of the frame in use. 2nd. A bicycle comprising in its construction a frame formed in two

sections one of which is provided with a substantially vertical brace, and the other having fulcrum pieces sleeved on the brace,



and bolts and keepers carried by said sections, the said bolts and keepers extending in a substantially horizontal direction and located at a distance from the hinged connection, and the bolt casings and keepers being adapted to closely meet, to insure rigidity of the frame in use. 3rd. A bicycle comprising in its construction a frame formed in two sections one of which is provided with a substantially vertical brace, and with bolt keepers, and the other having fulcrum-pieces sleeved on the brace, bolt casings carried by said fulcrum-pieces, and spring-bolts in said casings, the said bolts and keepers extending in a substantially horizontal direction and located at a distance from the hinged connection, and the bolt casings and keepers being adapted to closely meet, to insure rigidity of the frame in use. 4th. In a bicycle, the combination with the bars 1, 1', the brace 3, and the coupling tubes 2, 2', of the fulcrum-pieces 4, 4', secured to the front frame sections 6, 6', and sleeved on the brace 3, and bolts and keepers for locking the fulcrum-pieces, the said bolts and keepers extending in a substantially horizontal direction and located at a distance from the hinged connection, and the bolt casings and keepers being adapted to closely meet, to insure rigidity of the frame in use, substantially as described. 5th. In a bicycle, the combination with the bars 1, 1', the brace 3, and the coupling-tubes 2, 2', of the fulcrum-pieces 4, 4', secured to the front frame sections 6, 6', and sleeved on the brace 3, the bolt casings 8, 8', secured to the fulcrum pieces and containing spring bolts and keepers 15, 15', secured to the bar 1 and to the main post a, of the machine, substantially as described.

**No. 57,703. Bicycle Frame. (Cadre de bicycles.)**



Joseph Pernet Magney, Chicago, Illinois, U.S.A., 7th October, 1897; 6 years. (Filed 13th September, 1897.)

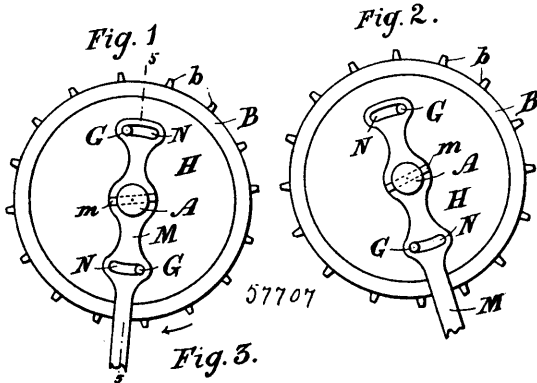
*Claim.*—1st. As a new article of manufacture, the truss-frame proper of a safety bicycle having a brace, a top chord, a steering head support, a lower chord, and rear fork, the whole being formed entire of a continuous length of material with the rear-fork section split and expanded, substantially as described. 2nd. As a new



clamp united to the seat spring embracing the tie-plate, a cross head connected to the seat spring on the inner side of the rear forks, a seat frame connected to the rear of the seat spring, a seat, the rear of the seat being connected to the seat frame, the horn of the seat connected to the seat spring, and hand-grip connected to the saddle post, substantially as specified. 5th. In a bicycle, the combination of the rear forks, a tie-plate uniting the rear forks above the driving wheel, a seat spring, a clamp united to the seat spring embracing the tie-plate, a cross head connected to the seat spring on the inner side of the rear forks, a seat frame connected to the rear of the seat spring, a seat, the rear of the seat being connected to the seat frame, the horn of the seat connected to the seat spring, hand-grips connected to the saddle post, and foot rests connected to the rear forks below the supplemental seats, substantially as specified. 6th. In a bicycle, the combination of the rear forks, a tie-plate uniting the rear forks above the driving wheel, a seat spring, a clamp united to the seat spring embracing the tie-plate, a cross head connected to the seat spring on the inner side of the rear forks, a seat frame connected to the rear of the seat spring, a seat, the rear of the seat being connected to the seat frame, the horn of the seat connected to the seat spring, a T-coupling connected to the horizontal part of the seat post, having hollow screw-threaded branches, and hand-grips having shanks fitted into the hollow screw-threaded branches of the T-coupling, substantially as described. 7th. In a bicycle, the combination of the rear forks, a tie-plate uniting the rear forks above the driving wheel, a seat spring, a clamp united to the seat spring embracing the tie-plate, a cross-head connected to the seat spring on the inner side of the rear forks, a seat frame connected to the rear of the seat spring, a seat, the rear of the seat being connected to the seat frame, the horn of the seat connected to the seat spring, a T-coupling connected to the horizontal part of the seat post, having hollow screw-threaded branches, hand-grips having shanks fitted into the hollow screw-threaded branches of the T-coupling, and foot-rests connected to the rear forks below the supplemental seat, substantially as specified.

**No. 57,707. Foot Rest and Stop Motion.**

(*Appui-pieds et arrêt.*)



Robert Curtis Warner, Osnabruck Centre, Ontario, Canada, 7th October, 1897; 6 years. (Filed 24th September, 1897.)

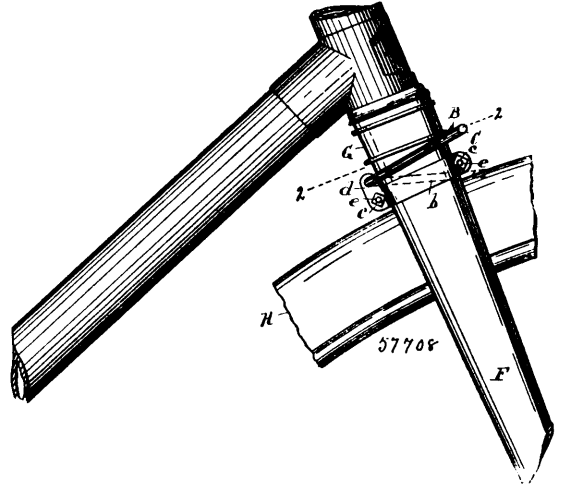
**Claim.**—1st. A foot rest and stop motion for bicycles, consisting of a sprocket rim having internal ratchet teeth, a disc on which the said rim revolves, sliding pawls in the said disc adapted to engage the said ratchet teeth, the axle on which the said disc is journaled having pockets to receive the butts of the said sliding pawls, the said pockets having one side inclined, a crank secured on the said axle, pins secured in the said disc, slots in the said crank adapted to be engaged by the said pins, whereby a limited movement is given to the axle in relation to the said disc, causing the pawls to be put into or out of engagement with the said ratchet teeth, substantially as set forth. 2nd. In a foot rest and stop motion for bicycles, the combination with the sprocket rim B, internal ratchet teeth C and recessed portions c, c, of the discs E, H journaled on the axle A, sliding pawls I sliding in grooves in the disc E, pockets P formed in the said axle A, and having each one side inclined, the said pockets being adapted to receive the butts of the said pawls, substantially as set forth. 3rd. In a foot rest and stop motion for bicycles, the combination with discs carrying sliding pawls adapted to engage internal ratchet teeth on a sprocket rim revolving on said disc, of a crank having a limited motion relative to the said disc, the said crank being rigidly secured to the axle, pockets in the said axle to receive the butts of the said sliding pawls, the pockets being so constructed that the change in the relative position of the axle and discs either forces the pawls into engagement with the said ratchet teeth or retracts them, substantially as set forth.

**No. 57,708. Bicycle Brake.** (*Frein de bicycless.*)

Thomas Walsh, Detroit, Michigan, U.S.A., 7th October, 1897; 6 years. (Filed 24th September, 1897.)

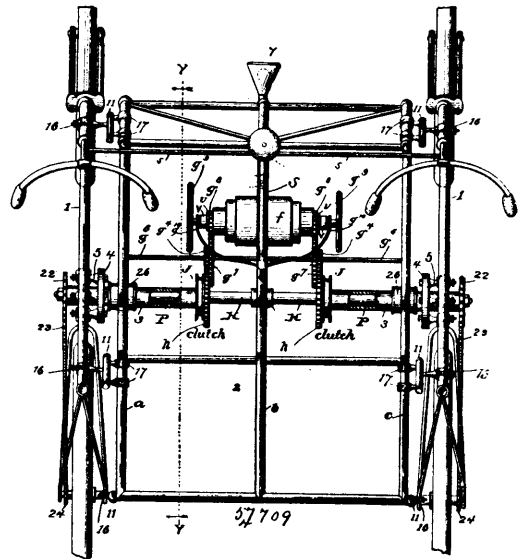
**Claim.**—1st. In a bicycle brake, the combination with the fork, of a rock-shaft mounted thereon, a brake-spoon on said shaft stand-

ing between the sides of said fork, and a crank extending from said shaft to operate said brake-spoon. 2nd. In a bicycle brake, the



combination with the fork-sides, of the vertically-adjustable clamps mounted on said sides, the rock-shaft journaled in said clamps, the brake-spoon on said shaft projecting between said fork-sides, and a crank upon said shaft for actuating said brake-spoon. 3rd. In a bicycle brake, the combination with the fork-sides, the supporting clamps adapted to embrace said sides, the rock-shaft carrying a brake-spoon which projects between said fork-sides, said shaft being journaled in brackets carried by said clamps, one of said clamps being movable longitudinally upon said shaft, and the crank upon said shaft for operating said brake. 4th. In a bicycle brake, the combination with the fork-sides, the supporting clamps adapted to embrace said fork-sides, the transverse rock-shaft journaled in said clamps and carrying a brake-spoon which projects between said fork-sides, a crank upon said shaft for actuating said brake-spoon, and a coiled spring upon said shaft engaging said brake-spoon to normally retain it in a raised position against the crown of the fork. 5th. In a bicycle brake, the combination with the fork-sides, the supporting clamps mounted on said sides and capable of vertical adjustment, the rock-shaft journaled in said clamps, the brake-spoon carried by said shaft, the crank upon said shaft for actuating said spoon, and a spring for retaining said spoon in a raised position.

**No. 57,709. Velocipede.** (*Vélocipède.*)

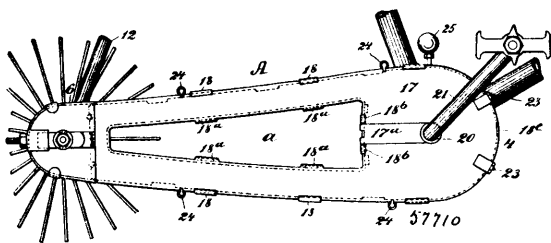


Hermann Gottfried Neumann, Bessemer, Alabama, U.S.A., 7th October, 1897; 6 years. (Filed 7th September, 1897.)

**Claim.**—1st. In a velocipede, the combination with two bicycles of ordinary construction, and the frame of another bicycle, means for connecting the parts together, an engine frame supported by the bicycle frames, the driving shaft connected with the driving shafts of the two bicycles, and connections between the engines and the driving shafts for imparting the movement of the engine to the driv-

ing shaft, substantially as set forth. 2nd. The combination with two bicycles and the main frame, said parts being removably connected together, of an engine supported by the main frame, provided with a drive shaft having a geared connection with the engine shaft and with the drive shafts of the two bicycles, substantially as set forth. 3rd. In a velocipede, the combination with two bicycles of the usual or well known construction, the main frame removably clamped thereto, an engine supported by said frame, an engine shaft, gear wheels loosely mounted upon the ends of said shaft, a driving shaft connected to the driving sprockets of bicycles, gear wheels on said driving shaft in mesh with those on the engine shaft, clutches connecting said gear wheels with said driving shaft, whereby the gear wheels are caused to turn in unison with the driving shaft, the construction being such that the machine may run faster than the working of the engine, substantially as set forth. 4th. The combination with two bicycles of the usual and well known construction, the main frame clamped thereto, of an engine for driving the bicycles, a steering lever, a rod connecting the steering heads of the two bicycles and pivoted to the steering lever, whereby when said lever is actuated, the steering of the two bicycles will be moved in unison, substantially as set forth. 5th. In a velocipede, the combination with two bicycles of ordinary construction, of a frame having a spring-controlled rocking connection with said bicycles, a motor supported by the main frame, and geared with the propelling mechanism of the two bicycles, substantially as set forth. 6th. In a velocipede, the combination with two bicycles of ordinary construction, of a frame removably hung to the bicycle frame, spring balances connected to the frame and removably connected to the bicycle frames, and a motor supported by the main frame and geared with the propelling mechanism of the two bicycles, substantially as set forth. 7th. In a velocipede, the combination with two bicycles of ordinary construction, of a main frame having bearings, hanger sleeves extending through said bearings and provided with clamping bolts to removably connect the bicycle frames with the main frame, spring balances consisting of segmental tubes suitably secured to the main frame and provided with a segmental slot, springs arranged within said tubes, blocks interposed between the adjacent ends of the springs, a clamp bolt connected to said block and removably clamped to the bicycle frame, and a motor supported by the main frame and geared with the driving mechanism of the bicycles, substantially as set forth. 8th. In a velocipede, the combination with the bicycle frames and the main frame, of a hanger sleeve removably connected to the bicycle frame and supported in bearings formed in the main frame, and provided with a threaded portion, rings screwed upon said threaded portion, and nuts screwed upon the bearings of the main frame and against said ring, whereby the main frame is allowed a rocking motion with respect to the bicycle frames or *vice versa*, and is prevented from shifting sidewise or laterally, substantially as set forth.

**No. 57,710. Velocipede Frame.** (*Cadre de vélocipèdes.*)



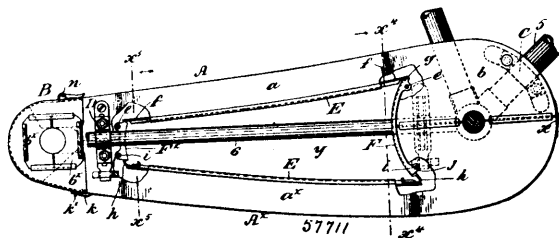
Frederick Herold Nies, Brooklyn, and William Dunn, New York, both in the State of New York, U.S.A., 7th October, 1897; 6 years. (Filed 15th September, 1897.)

*Claim.*—1st. A bicycle frame having for one of its members a gear-case extending parallel with the longitudinal axis of the frame, said gear-case having rigid open-fronted, trough-like channels to receive the runs of the driving chain, an open fronted housing for the main sprocket wheel, a removable cover-plate for said channels and housing, and securing devices for said cover-plate. 2nd. A bicycle frame having for one of its members a gear-case extending parallel with the longitudinal axis of the frame, said gear-case having rigid open-fronted, trough-like channels to receive the runs of the driving chain, an open-fronted housing for the main sprocket wheel, a removable cover-plate for said channels and housing, securing devices for said cover-plate, a fixed cover-plate for the housing of the lesser sprocket wheel, slides, in the last named housing, and embracing the hub and axle of the rear wheel, and means, substantially as described for moving said axle and slides in adjusting the slack of the driving chain. 3rd. A bicycle frame having for one of its members a gear-case extending parallel with the axis of said frame, said gear-case being rigidly connected at its rear end with the upright member, 12, of the frame and at its front end having a sleeve 10, which is fixed rigidly on the crank-hanger 1, and said gear-case having its front provided with a removable cover, substantially as set forth. 4th. A bicycle frame having for one of its longitudinal members a gear-case with housings and channels to embrace and enclose the sprocket wheels and chain, the housing 6 for the lesser

sprocket wheel, having fixed front and back plates, and an open rear end, a curved, removable plate 13 which closes said open end, a slide 15, embracing the rear axle and provided with an operating screw and nut, and a slide 16, embracing the hub of the rear wheel, substantially as set forth. 5th. A tapered gear-case for a bicycle having end-housings 4 and 6 connected by open, trough-like channels 8 and 8<sup>a</sup> for the runs of the driving chain, clips 18, on the outer margins of the said channels, and lips 19 in the inner margins thereof, and a cover-plate 17, adapted to fit over the face of said gear-case and to engage the clips 18 at its outer edges, and provided at its inner edges with clips 18<sup>a</sup>, which engage the lips 19 when the cover-plate is in place, substantially as set forth. 6th. A gear-case for a bicycle having housings at its end for the respective sprocket wheels and open-fronted channels between said housings for the runs of the chains, said channels being wider, laterally, than the housing for the reasons set forth, and a removable cover-plate for said gear-case, substantially as set forth. 7th. A gear-case for a bicycle having housing at its ends for the sprocket wheels and open, trough-like channels connecting said housings and adapted to receive the runs of the chain, a removable cover-plate, 17, for the face of said gear-case said cover-plate having in it a slot to admit the crank and a slide 17<sup>a</sup> adapted to close said slot, and means for securing said cover to the case, substantially as set forth. 8th. The combination with the gear-case A, provided with a recessed stud 24, of the cover-plate 17, having a spring-plate 23<sup>a</sup>, and hasp 23, hinged to the end of said spring-plate and having an aperture to engage the said recessed stud when the cover is in place on the gear-case, substantially as set forth. 9th. The combination with the gear-case A, of the cover-plate 17, adapted to fit over the open front of the same, and the spring securing devices on the case, each of said devices comprising a tube 24, fixed to the gear-case, a turn-button, rotatively mounted in said tube and consisting of the shank 24<sup>a</sup>, its jaw 24<sup>b</sup> adapted to take over the cover-plate, and the nicked head 24<sup>c</sup>, and the spring 24<sup>d</sup>, whereby the jaw of the turn-button is drawn up against the cover plate, substantially as set forth.

**No. 57,711. Gear Case for Bicycles.**

(*Boîte d'engrenage pour bicycles.*)

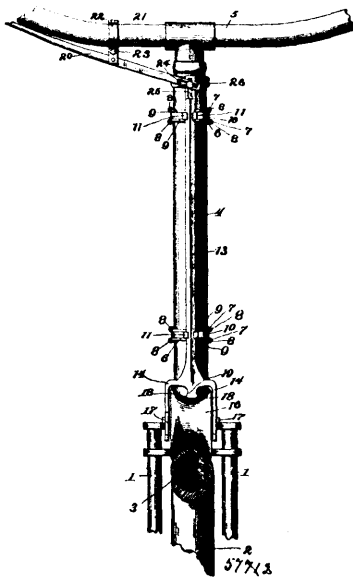


Frederick Harold Nies, Brooklyn, and William Dunn, New York, both in the State of New York, U.S.A., 7th October, 1897; 6 years. (Filed 15th September, 1897.)

*Claim.*—1st. A gear-case for a bicycle comprising two sections, A and A<sup>x</sup>, hinged together at their front ends, the upper sections being provided with means for securing it to the bicycle frame, and a housing B, adapted to fit over and confine the rear extremities of the sections A and A<sup>x</sup>. 2nd. A gear-case for a bicycle comprising two sections, A and A<sup>x</sup>, hinged together at one end, a removable housing adapted to embrace and enclose the free ends of said sections and movable cover-plates, adapted to close the peripheral openings about the aperture *n*, in the gear case, substantially as set forth. 3rd. A gear-case for a bicycle comprising the two hinged sections A and A<sup>x</sup>, the removable housing adapted to embrace and enclose the free ends of said sections, the detachable cover-plates E and E<sup>x</sup>, closing the respective open channels for the chains, and the cover-plates F and F<sup>x</sup>, hinged to one of said sections of the gear case and closing the respective housings, the said cover-plates having grooves along their edges to receive the edges of the plates forming the gear-case, substantially as set forth. 4th. In a gear-case for bicycles, the combination with the upper section A, comprising the open, upper chain-channel *a*, and the upper halves of the housings for the sprocket-wheels, the lower section A<sup>x</sup>, comprising the open, lower chain-channel *a*, and the lower halves of the sprocket-housings, said sections being hinged together at *x*, and the removable housing B, adapted to be slipped over the free ends of said sections A and A<sup>x</sup>, so as to enclose and secure them, of the movable cover-plates for closing the open edges of the chain-channels and housings, and means for securing one section of the gear case to the frame of a bicycle, substantially as set forth. 5th. A gear-case for a bicycle comprising an upper section A, a lower section A<sup>x</sup>, and means for detachably securing them together, of a clip mechanism for securing the upper section A, to the member 6, of the bicycle frame, said clip mechanism comprising a slotted base *d*, fixed to the section A, overlapping the section A<sup>x</sup>, and adapted to take under a keeper *d*<sup>b</sup>, on the last-named section, the said keeper, the screw posts *d*<sup>1</sup>, mounted adjustably in the slot in said base, the jam nuts *d*<sup>2</sup>, for securing said posts in the base, the semicircular bands *d*<sup>3</sup>, threaded on said posts, and the nuts *d*<sup>4</sup>, on said posts, substantially as set forth. 6th. An adjustable clip mechanism for securing a gear-case

to the frame of a bicycle, comprising a slotted base or base-plate, adapted to be secured to the gear-case, two screw-threaded posts mounted in said slot, the bodies of the posts engaging said slot and the heads thereof taking under the margins thereof, the clamping bands mounted adjustably on said posts, the jam-nuts on said posts, substantially as set forth. 7th. The combination with a gear-case, of a clip C, for securing said case at its front end to an inclined member of the bicycle frame, said clip comprising a base having in it a curved slot *c*<sup>1</sup>, the two screw-posts *c*<sup>1</sup>, mounted adjustably in said slot and provided with securing nuts *c*<sup>2</sup>, the clamping bands, threaded on the said posts, and the nuts *c*<sup>3</sup>, on the posts, for adjusting and securing said bands, substantially as set forth. 8th. The combination with the sections of the gear-case, of the housing B, adapted to fit over, embrace and enclose the ends of said sections, and the means for securing said housing in place, said means comprising a leaf spring *m*, fixed in a slot in the end of the section of the gear-case, and a cam *n*, mounted in a slot in the housing and adapted, when the housing is in place, to press upon said spring when rotated, substantially as set forth.

**No. 57,712. Bicycle Brake. (Frein de bicycless.)**

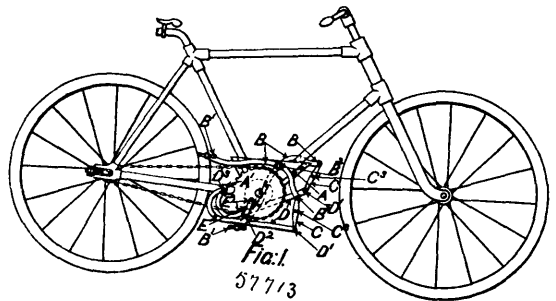


David A. Taylor, Black Cape, Quebec, Canada, 7th October, 1897; 6 years. (Filed 17th September, 1897.)

*Claim.*—1st. In a brake of the class described, the combination with a staff, and means for operating the same, of a frame carried thereby, a brake roller journaled in said frame and longitudinally movable therein, and a shoe carried by said frame and adapted to frictionally engage the roller, substantially as described. 2nd. In a brake of the class described, the combination with a staff, and means for operating the same, of a frame carried thereby and provided with arms having slots formed therein, a brake roller arranged in said frame and provided with trunnions, the latter being disposed in said slots and movable therein, and a shoe carried by the frame and adapted to frictionally engage the roller, substantially as described. 3rd. In a brake of the class described, the combination with a staff, and means for operating the same, of a brake carried by said staff, a series of guide collars carried by the vehicle, a series of supporting bands mounted upon said collars and adapted to slide thereon, and suitable connections between said bands and the staff, whereby the latter is attached to the bands and capable of a sliding movement for applying and releasing the brake, substantially as described. 4th. In a brake of the class described, the combination with a staff, and means for operating the same, of a brake carried by said staff, a series of guide collars carried by the vehicle, a series of supporting bands mounted upon said collars and adapted to slide thereon, and a series of fingers carried by each of said bands and adapted to clasp the staff, whereby the latter is connected to the bands and capable of a sliding movement for applying and releasing the brake, substantially as described. 5th. In a brake of the class described, the combination with a staff, and means for operating the same, said staff being angular in cross section, of a brake carried by the vehicle, a series of supporting bands mounted upon said collars and adapted to slide thereon, and a series of fingers carried by each of said bands and conforming to the angle of the staff, said fingers being adapted to clasp the staff, whereby the latter is connected to the bands and capable of a sliding movement for applying and releasing the brake, substantially as described. 6th. In a brake of the class described, the combination with a staff, and a brake carried thereby, said staff being provided in its upper end with an elongated slot, of a lever for operating said staff, said lever being provided in one of its ends

with an elongated slot which crosses the slot of the staff, and a connecting bolt fixed in one of said slots and movable in the other, substantially as described. 7th. In a brake of the class described, the combination with a staff, the latter being angular in cross-section and provided with an elongated slot in its upper end, of a brake carried by said staff, a series of guide collars carried by the vehicle, a series of supporting bands mounted upon said collars and adapted to slide thereon, a series of fingers carried by each of said bands and conforming to the angle of the staff, said fingers being adapted to clasp the staff, whereby the latter is connected to the bands and capable of a sliding movement for applying and releasing the brake, a lever for operating the staff, said lever being provided in one of its ends with a slot which crosses the slot in the upper end of the staff, and a connecting bolt fixed in one of said slots and movable in the other, substantially as described. 8th. In a brake of the class described, the combination with a staff, the latter being angular in cross-section and provided with an elongated slot in its upper end, of a U-shaped frame carried by the staff, the arms of said frame being provided with elongated slots, a brake roller arranged in said frame and provided with trunnions, the latter being disposed in said slots, and movable therein, a shoe carried by said frame and arranged directly above the roller, said shoe being adapted to frictionally engage said roller, a series of guide collars carried by the vehicle and each provided with annular beads, a series of supporting bands mounted upon said collars and adapted to slide thereon between said beads, a series of fingers carried by each of said bands and conforming to the angle of the staff, said fingers being adapted to clasp the staff, whereby the latter is connected to the bands and capable of a sliding movement for applying and releasing the brake, a lever for operating the staff, said lever being provided in one of its ends with a bolt which crosses the slot in the upper end of the staff, and a connecting bolt fixed in one of said slots and movable in the other, substantially as and for the purpose described.

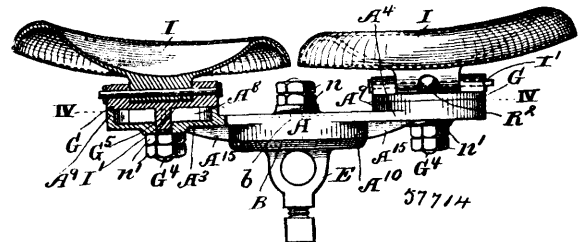
**No. 57,713. Driving Mechanism for Velocipedes. (Mecanisme de commande pour velocipedes.)**



Thomas Grace, Darlington, New South Wales, 7th October, 1897; 6 years. (Filed 20th September, 1897.)

*Claim.*—1st. In a velocipede, the combination with the axle of the driving gear or driving axle, having on its ends devices carrying crank pins, of two levers pivoted conveniently to the frame, one said lever having a pedal on one end and connected forwardly of its fulcrum by a link or rod to the other said lever, said other lever fulcrumed backwardly and having a rod or link connection to crank pin of said driving axle, substantially as herein described and explained. 2nd. The combination and arrangement with a velocipede having a driving axle, of the levers and mechanical devices distinguished by reference letters and numerals, substantially as herein described and explained and as illustrated in the drawings.

**No. 57,714. Saddle for Bicycles or Velocipedes. (Selle pour bicycles ou velocipedes.)**

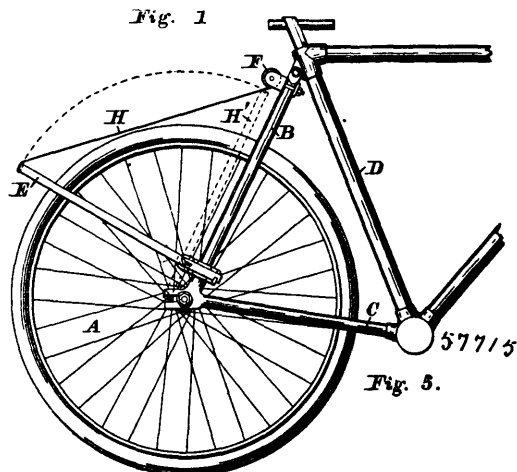


Wilbur Sanders Uspan, Mansfield, Ohio, U.S.A., 7th October, 1897; 6 years. (Filed 18th September, 1897.)

*Claim.*—1st. In a saddle for a bicycle or velocipede, a table having a limited capability of being oscillated, a plate or base supporting said table, a chamber formed between the opposing surfaces of the table and support, and means acting to retain the table in its normal position and contained within the said chamber, substantially as and for the purpose set forth. 2nd. In a saddle for a

bicycle or velocipede, a seat-bearing vertically pivoted table, a plate or base supporting said table, and means confined between the opposing surfaces of the said parts and acting to retain the table in its normal position, and having the arrangement and properties required to accommodate only a very limited oscillation of the said table, substantially as set forth. 3rd. In a saddle for a bicycle or velocipede, a table having a limited capability of oscillating, the member supporting said table, a chamber or space formed between the opposing surfaces of the said table and the latter's support, and a spring confined within the said space and acting to retain the table in the latter's normal position, substantially as set forth. 4th. In a saddle for a bicycle or velocipede, a table capable of oscillating, the member supporting the said table, a chamber formed between the opposing surfaces of the table and the latter's support, two compressible and elastic blocks confined within the said chamber, and a member projecting from one of the opposing surfaces into the said chamber and between the aforesaid blocks, substantially as and for the purpose set forth. 5th. In a saddle for a bicycle or velocipede, a table capable of oscillating, the member supporting the said table, two ribs or flanges formed upon one of the opposing surfaces of the said parts and a suitable distance apart, two compressible and elastic blocks interposed between the said flanges or ribs, and a member formed upon the other of the said opposing surfaces and projecting between the said blocks, substantially as and for the purpose set forth. 6th. In a saddle for a bicycle or velocipede, a table capable of oscillating, the support for the said table, two ribs or flanges formed upon one of the opposing surface of the said parts and arranged radially of the table, two corresponding compressible and elastic blocks interposed between the said flanges or ribs, and a member formed upon the other of the said opposing surfaces and arranged radially of the table and projecting between the aforesaid blocks, substantially as shown for the purpose specified. 7th. In a saddle for a bicycle or velocipede, a table capable of oscillating, the member supporting the table, two chambers formed between the opposing surfaces of the said table and the latter's support at opposite sides, respectively, of the table's axis, a pair of compressible and elastic blocks confined within each of the said chambers, and members formed upon the other of the two opposing surfaces and projecting between the blocks of the two pairs of blocks, substantially as shown for the purpose specified. 8th. In a saddle for a bicycle or velocipede, a table capable of oscillating and provided with a depending annular flange arranged concentrically of the table's axis, the member affording bearing for the said flange, two ribs or flanges formed upon the underside of the table a suitable distance apart, two compressible and elastic blocks interposed between the said flanges or ribs, and a member formed upon the table's aforesaid support and projecting between the said blocks, substantially as and for the purpose set forth. 9th. In a saddle for a bicycle or velocipede, two seat-bearing tables capable of oscillating and arranged a suitable distance apart, the support for the said tables, chambers formed between the opposing surfaces of the tables and the latter's support, and means confined within the said chamber and acting to retain the tables in their normal position, substantially as set forth. 10th. In a saddle for a bicycle or velocipede, two seat-bearing tables capable of oscillating and arranged a suitable distance apart, a member rigid with and projecting from one of the opposing surfaces of the said parts, and two compressible and elastic blocks confined at opposite sides respectively of the said projecting member, substantially as and for the purpose set forth. 11th. In a saddle for a bicycle or velocipede, two seat-bearing tables capable of oscillating and arranged a suitable distance apart, a support for said tables, an annular flange formed upon the said support below each table and arranged concentrically of the said table's axis, and suitably applied means confined between the inner surface of the said flange and the table's axis, and acting to retain the table in its normal position, substantially as and for the purpose set forth. 12th. In a saddle for a bicycle or velocipede, two seat-bearing tables capable of oscillating and arranged a suitable distance apart, a support for said tables, two ribs or flanges formed upon the said support below each table a suitable distance apart, and two compressible and elastic blocks between the said ribs or flanges, and a rib or flange formed upon the underside of the table that is arranged over the said blocks, and projecting between the said blocks, substantially as shown for the purpose specified. 13th. In a saddle for a bicycle or velocipede, two seat-bearing tables capable of oscillating and arranged a suitable distance apart, a support for the tables, an annular flange formed upon the support below each table and arranged concentrically of the table's axis and affording bearing for the table, two compressible and elastic blocks confined between the said flange's inner surface and the table's axis, and a member formed upon the table and projecting between the said blocks, substantially as shown for the purpose specified. 14th. In a saddle for a bicycle or velocipede, the combination with a vertically and forwardly-tiltable seat, of a compressible and elastic stop arranged to limit the forward tilting of the said seat, substantially as set forth. 15th. In a saddle for a bicycle or velocipede, the combination with a seat support, the seat horizontally hinged or pivoted to the said support and transversely of the saddle and tiltable forwardly, a recess or pocket formed in the said support forward of the seat's axis, and the compressible and elastic block seated within and projecting above the pocket and arranged to form a stop for limiting the forward tilting of the seat, substantially as set forth.

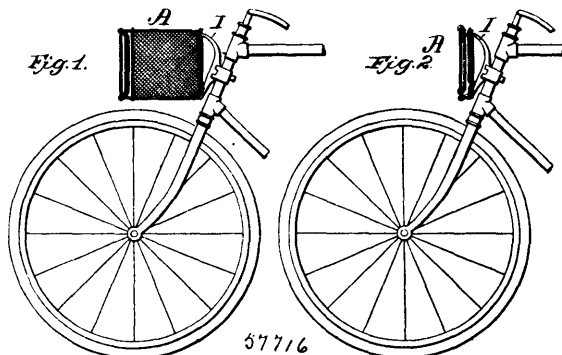
**No. 57,715. Mud Guard for Bicycles.**  
(*Garde-crotte pour bicycles.*)



Herbert Lincoln Hall, Rochester, New York, U.S.A., 7th October, 1897; 6 years. (Filed 20th September, 1897.)

*Claim.*—1st. The combination, with the frame of a bicycle, of the spring roller F, the extensible mud-guard strip H, the slotted-swinging and lengthwise movable frame E provided with notches n, the clips a a, the pivots g inserted in the clips on one side of the upright and engaging in the slots in the swinging frame, and the hooks f attached to the clips on the other side of the uprights and adapted to engage in the notches in the swinging frame, whereby the frame is adapted to be disengaged from the clips to fold it up by a lengthwise movement on the pivots in the slots, substantially as described. 2nd. The combination with the frame of a bicycle, of the spring roller F, the extensible mud-guard strip H, the slotted swinging frame E provided with notches n, the clip a having hooks f, and the flat-headed pivots g, substantially as described.

**No. 57,716. Bicycle Carrier.**(*Porte-bicycles.*)



Ulysses Simpson Grant and Brown More Riley, both of New York, State of New York, U.S.A., 7th October, 1897; 6 years. (Filed 23th September, 1897.)

*Claim.*—1st. In combination with a bicycle or like vehicle, a bracket adapted to be clamped thereto, and a receptacle made in sections so as to fold, supported by said bracket, as specified. 2nd. In combination, a bracket adapted to be clamped to the frame of a bicycle, and a carrier supported by said bracket, said carrier consisting of a frame made in sections so as to fold, and netting for enclosing the receptacle, as specified. 3rd. In combination with a receptacle of the character described, a bracket composed of four arms terminating in clips for engagement with a receptacle, and a clamp carried by the bracket, whereby the latter may be secured to the bicycle head, as specified. 4th. In combination with a bracket of the character described, a receptacle consisting of rectangular frames hinged together, hooks formed together upon two of said frames for engagement with the front section of the receptacle, and wire netting enclosing the receptacle, as specified.

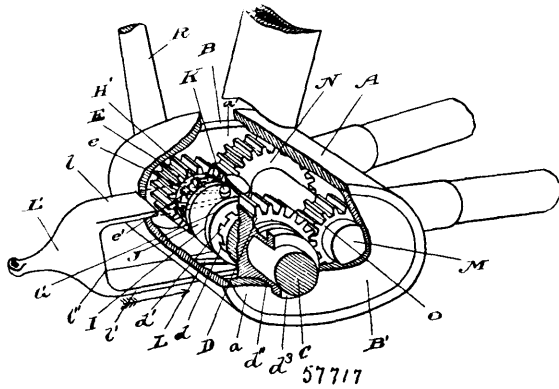
**No. 57,717. Interchangeable Gear for Bicycles.**  
(*Engrenage échangeable pour bicycles.*)

James G. Rouse, Boston, Ontario, Canada, 7th October, 1897; 6 years. (Filed 21st September, 1897.)

*Claim.*—An interchangeable gear for bicycles, consisting of a crank axle, a pinion loosely mounted on the crank axle, a clutch

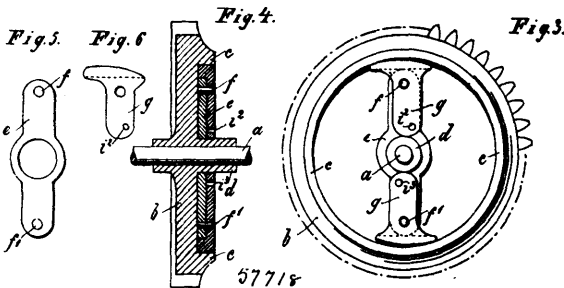


member on the inner side face of the pinion, a sprocket wheel rigidly connected to the outer side face of the pinion, a second pinion loosely



mounted on the crank axle, a clutch member formed on the inner side of the second pinion, a sliding clutch member mounted on and revolving with the crank axle between the pinions, a lever to move the sliding clutch member into and out of engagement with the clutch members of the pinions, a supplemental shaft, and pinions mounted on the supplemental shaft, meshing with the pinions on the crank axle, substantially as specified.

**No. 57,718. Driving Mechanism with Lever and Friction Disc for Vehicles, Velocipedes, etc.** (*Mécanisme de commande avec levier et disque à friction pour voitures, vélocipedes, etc.*)



Carl Theodor Gottlieb Schneidewind, Hamburg, Germany, 7th October, 1897; 6 years. (Filed 28th September, 1897.)

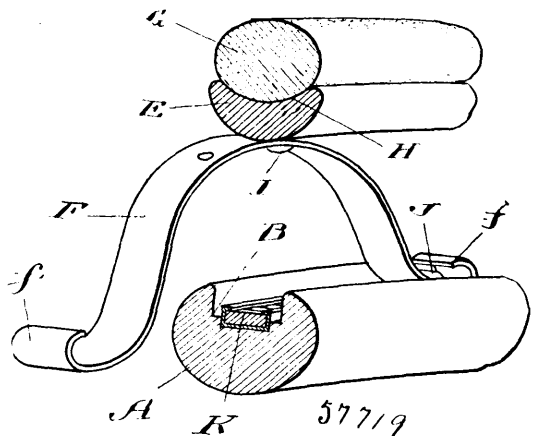
*Claim.*—1st. Driving gear for cycles and other vehicles which consists of a gripping apparatus operated by a lever or levers in such manner as to cause the rotation of a friction disc and of a wheel connected therewith, from which wheel rotatory motion can be transmitted to the road wheel of the cycle or other vehicle by means of toothed gearing or otherwise, constructed and arranged substantially as hereinbefore described. 2nd. In driving gear of the kind forming the subject matter of the first claiming clause hereof, the arrangement which consists of the gripping pieces *g* and *g'* mounted on the pins *f* and *f'*, of a cross piece *e* mounted on the boss *d* of a wheel *b* or disc *l* provided with a friction surface *e*, of a lever *h* provided with pins *i* and *i'*, which take into corresponding holes *i<sup>2</sup>* and *i<sup>3</sup>* of the said gripping pieces, and of gearing *b*, *s*, *t*, or other suitable mechanism for transmitting motion from the driving gear to the road wheel of the cycle or other vehicle, constructed and arranged substantially hereinbefore as described.

**No. 57,719. Tire for Cycles.** (*Bandage de cycles.*)

Austin Ryan, Preston, Ontario, Canada, 7th October, 1897; 6 years. (Filed 29th September, 1897.)

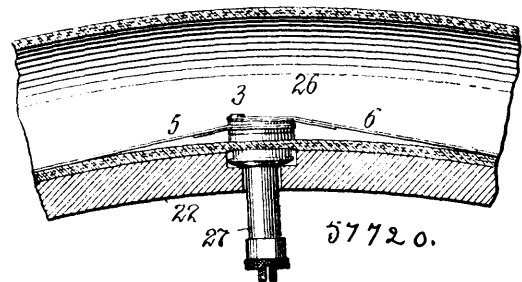
*Claim.*—1st. A tire for a wheel consisting of a felloe, a band of a greater diameter surrounding the felloe, and a series of compressible springs interposed between the band and felloe, substantially as described. 2nd. A tire for a wheel consisting of a felloe, a band of a greater diameter surrounding the felloe, a series of U-shaped springs, the middle of each spring connected to the inner face of the band, and the ends of the springs bearing on the outer face of the felloe, and clips for holding the ends of the springs to the felloe, substantially as specified. 3rd. A tire for a wheel consisting of a felloe, a band of a greater diameter surrounding the felloe, a series of U-shaped springs, the middle of each spring connected to the inner face of the band, and the ends of the springs bearing on the outer face of the felloe, clips for holding the ends of the springs to the ends of the felloe, and roller bearings journalled in the felloe opposed to the ends of the springs, substantially as specified. 4th. A tire for a wheel consisting of a felloe, a band of a greater diameter surrounding the felloe, a series of U-shaped springs, the middle of each

spring connected to the inner face of the band, and the ends of the springs bearing on the outer face of the felloe, clips for hold-



ing the ends of the springs to the felloe, roller bearings journalled in the felloe opposed to the ends of the springs, a guide for maintaining the tire in its proper relative position to the felloe, consisting of a cylinder connected to the band, a cushioning spring within the cylinder, and a plunger connected to the felloe working within the cylinder, substantially as specified. 5th. A tire for a wheel consisting of a felloe, a band of a greater diameter surrounding the felloe, a series of U-shaped springs, the middle of each spring connected to the inner face of the band, and the ends of the springs bearing on the outer face of the felloe, clips for holding the ends of the springs to the felloe, roller bearings journalled in the felloe opposed to the ends of the springs, a guide for maintaining the tire in its proper relative position to the felloe consisting of a cylinder connected to the band, a cushioning spring within the cylinder, a plunger connected to the felloe working within the cylinder, and a shoe of rubber or similar material for the tire, substantially as specified.

**No. 57,720. Tire for Bicycles, etc.** (*Bandage pour bicycles, etc.*)

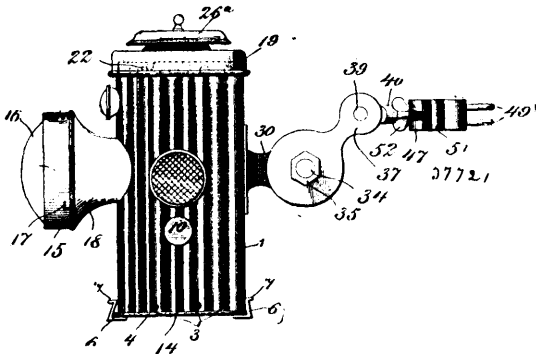


Frank Bayhes Griswold, Troy, New York, U.S.A., 7th October, 1897; 6 years. (Filed 1st October, 1897.)

*Claim.*—1st. The combination of a single tube pneumatic tire, and means for mechanically and detachably securing said tire to a wheel rim, substantially as described. 2nd. The combination of a single tube pneumatic tire, a band within said tire, a tightener for said band, also within said tire, and means for actuating said tightener to shorten said band, substantially as described. 3rd. The combination of a single tube pneumatic tire, means of mechanically and detachably securing said tire to a wheel rim, and an air valve, both said valve and said securing device being disposed and operating in one tubular appendage hermetically joined to said tire, substantially as described. 4th. The combination of a single tube pneumatic tire, a band within said tire, a tubular projection on said tire, a tightener for said band seated in said projection, and a casing containing an air valve, the said valve casing being located in said projection and capable of removal therefrom in order to allow access to said tightener, substantially as described. 5th. In a tire for bicycles or other vehicles, an external tire sheath formed from a single tube or hose pipe tire by slitting the same around its entire periphery, substantially as described. 6th. In a tire for bicycles or other vehicles, an external tire sheath formed from a single tube or hose pipe tire by partial y slitting the same around its inner periphery, substantially as described. 7th. In a tire for bicycles or other vehicles, a tire sheath, consisting of a single tube or hose pipe tire slit on its inner periphery, and provided with a band secured internally near the edges of said slit, and a tightening device interposed between the ends of said band, whereby said band may be constricted, substantially as described. 8th. The combination of a tubular tire, slit

over a portion of its length on its inner periphery, a band secured to said tire internally on each side of said slit, and a tightener substantially as set forth operated from the interior of said tire in order to constrict said tire when in place upon the rim, substantially as described. 9th. A device for fastening pneumatic tires for bicycles or other vehicles upon a wheel rim, comprising the combination of a band formed of parallel wires, plates to which the ends of said wires are respectively connected, and a tightener, substantially as described, in the form of a double rotary crank, to which the said plates are pivoted, the said tightener operating when rotated to draw said plates together, and to constrict said band when in place upon the wheel rim, substantially as described. 10th. A band tightening device for bicycle or other tires, two parallel plates joined at one edge, means for rotating said plates in their own planes, and means for connecting said plates respectively to the ends of a band, substantially as described. 11th. The combination of a band tightener, substantially as herein described, provided with a projecting rod, a wheel rim through which said rod passes, a tire and a band within said tire, encircling said rim, and connected to said tightener, the said tightener being constructed and operating as a double crank to constrict said band and bind said tire upon the rim when said projecting rod is rotated as described, substantially as described. 12th. The combination of a wheel rim having a central peripheral groove, a tire having edge flanges, adapted to enter and fill said groove when said tire is in place with its edges approximated upon said rim, a band within said tire encircling said rim and bearing upon both of said flanges, and a tightener constructed and operating, substantially as described, to which the ends of said band are connected, substantially as described. 13th. A tightener for bands for bicycle or other pneumatic tires, having a rod 1, and the integrally formed plates 2, 3, and 13, with recesses between said plates, in which recesses the ends of the band are connected, substantially as described. 14th. The combination with an inner inflatable tube of a bicycle tire, a sleeve of non-elastic material, surrounding said inflatable tube, and provided with an opening through which a rigid projection from said tube, such as a band tightener or casing for air valve, extends, substantially as described. 15th. The combination of a wheel rim, an outer tire sheath and inner inflatable tube, a tube of non-elastic material surrounding said inflatable tube, and a valve casing or tightener rod extending from said inner tube through said sleeve, tire sheath and rim, substantially as described. 16th. The combination of a securing band for bicycle or other pneumatic tires, consisting of two wires having heads formed at their extremities, and two plates provided with clips, in which clips said headed ends of said wires are received and secured, substantially as described.

**No. 57,721. Bicycle Lantern. (Lanterne de bicyclee.)**

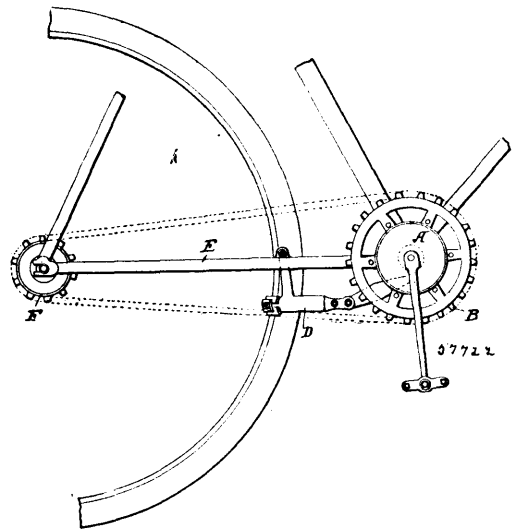


Almy Le Grand Peirce, Pittsburg, Pennsylvania, U.S.A., 7th October, 1897; 6 years. (Filed 30th September, 1897.)

*Claim.*—1st. In a lantern, the combination with a lantern-body, of an oil-reservoir located therein, a reflector, an angular standard for the same, said standard having a ring formed at its front end, and fitting over the neck of the oil-reservoir, and a burner threaded in the neck and clamping the ring thereon, whereby the reflector is supported in position. 2nd. In a lantern, the combination with a hollow body having perforations, of a burner and its reservoir located therein, and an air-space formed between the wall of the lamp-body and that of the reservoir and communicating with the perforations. 3rd. In a lantern, a longitudinally corrugated lamp-body, in combination with a removable oil-reservoir, whereby air-spaces are formed between the two. 4th. The combination with a corrugated lantern-body having perforations at or near its lower end, of a removable bottom, means for securing the bottom in position so as to close the lower end of the body, and an oil-reservoir seated upon the bottom and combining with the corrugated body to produce intermediate air-passages or spaces. 5th. The combination with a lantern-body, of a dome annularly flanged to embrace the upper end of the body and at intervals combining therewith to produce air-passages, said dome having a raised and perforated central portion, a rod depending from the dome, a hood or shield secured to the upper end of the rod and forming an air-space between the shield and dome, and a deflector secured to the lower end of the rod

and depending within the lantern-body and provided with perforations, and discs of refractory material secured to the rod under the top of the deflector and of the dome. 6th. The combination with the lantern-body, of the dome 19, removably mounted thereon, said dome having the annular depending flange 21, inclosing the upper end of the body, the raised central portion 24, perforated as at 25, the pin or rod 26, extending through the dome, the shield 26a at the upper end of the rod, the deflector 27 having the flange depending therefrom, and perforations 28. 7th. The combination with a lantern and a bracket-clamp for securing the same to a bicycle, of an intermediate bracket connected to the lantern and at its opposite end swivelled on the bracket, whereby the lantern will hang vertical regardless of the position of the bracket. 8th. The combination with a lantern and a bracket-clamp adapted to be secured to a machine, said clamp having projecting therefrom at its front side a bored stud annularly enlarged at the inner end of its bore, of an intermediate bracket secured at its front end to the lantern and at its rear end terminating in a cylindrical shank ending in a head fitting the bore, whereby the parts are swivelled. 9th. The combination with a lantern and its bracket, of the clamping-member 42 secured to the bracket, said member having a straight portion 45, terminating in a smaller clamping-member 47, the clamping-member 49, hinged as at 48 to the member 42, the T-bolt 50, secured thereto and extending through the straight portion 45 of the member 42, the winged-nut on the end of the T-bolt, and the smaller clamping-member 51. 10th. The combination with a lantern having an arm extending rearwardly therefrom and terminating in a disc having an annular flange, a drum loosely received by the flange, and a flanged disc similarly receiving the opposite end of the drum and having a perforation corresponding with a similar perforation in the opposite disc, of a bolt connecting the two discs, and a spring coiled in opposite directions about the bolt and having its ends connected to the opposite discs, and means for supporting the bracket through the last mentioned disc. 11th. The combination with a lantern having a disc secured to its rear side, of a companion disc, an intermediate drum, a bolt connecting the two discs, a balancing-spring carried by the bolt and connected to the discs, a friction-disc formed on the companion disc, a companion friction-disc arranged opposite the same, a binding-screw connecting the two, a bracket-clamp, and a swivelled-connection between the companion friction-disc and the bracket-clamp.

**No. 57,722. Brake Gearing for Cycles. (Engrenage de frein pour cycles.)**

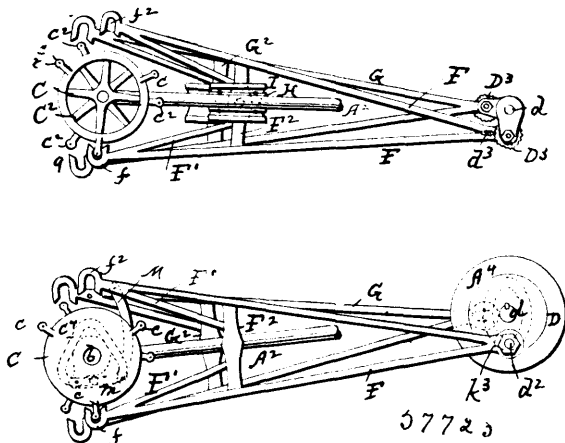


Lavernx Nelson Dyhrberg, Ashburton, Canterbury, New Zealand, 7th October, 1897; 6 years. (Filed 1st October, 1897.)

*Claim.*—1st. The herein described friction clutch brake-gearing for cycles substantially as set forth and illustrated in the accompanying drawings. 2nd. In a brake-gearing for cycles, a clutch box such as A formed on or attached to the driving chain wheel such as B, in which clutch box a clutch block C and rollers a are contained, to the face plate b of which block is connected, by means of rod such as c a brake such as D, in combination with a chain wheel forming a clutch box such as F on the hub of rear wheel in which clutch box a clutch block G and rollers g are contained and provided with locking device, substantially as and for the purpose herein described and illustrated in the accompanying drawings. 3rd. In a brake-gearing for cycles, a clutch box such as A' formed on or attached to the driving chain wheel B', in which clutch box a clutch block C' and rollers a' are contained, such chain wheel and clutch block being fitted upon the bracket C, provided with flanges i and i', forming the face plate of said block and provided with arc-shaped slot j through which a pin k secured to said block passes and to which pin

the brake rod *e* is connected, in combination with a chain wheel forming a clutch box such as *F* on hub of rear wheel, in which clutch box a clutch block *C* and rollers *g* are contained and provided with a locking device substantially as and for the purposes herein described and illustrated in the accompanying drawings. 4th. In a brake-gearing for cycles, a clutch box *A*<sup>2</sup> fitted upon crank and having a clutch block *C*<sup>2</sup> and rollers within it, to which clutch block the brake rod is connected, in combination with a clutch block *G*<sup>1</sup> fixed upon crank spindle and working with rollers within a clutch box on a driving wheel substantially as described and illustrated in the accompanying drawings.

**No. 57,723. Mechanical Movement for Bicycles.**  
(*Mouvement mécanique pour bicycles.*)



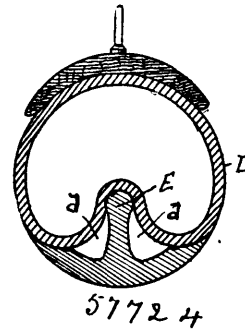
Hosmer Tuttle, Cedar Rapids, Iowa, and Shelley Tuttle, Salt Lake City, Utah, both in the U.S.A., 7th October, 1897; 6 years. (Filed 20th September, 1897.)

*Claim.*—1st. A mechanical movement consisting of an axle carrying two crank-pins, a forked connecting-rod mounted at one end upon each crank-pin and having at the opposite end two oppositely disposed sprocket-receivers, sprocket-wheels for engagement with said sprocket-receivers, and antifriction rollers between the sprocket-wheels and the forked connecting-rod, substantially as described. 2nd. In a mechanical movement for bicycles, the combination of the axle of one of the carrying-wheels, two crank-pins carried by said axle, two branched connecting-rods having at one end two oppositely disposed sprocket-receivers, sprocket-wheels having teeth for engagement with the branched connecting-rods, a brace uniting the branches of said rods, a guide-plate, and a cross-head embracing said plate and having a pin revolvably connected with the branched connecting-rod, substantially as described. 3rd. In a bicycle, the combination of a sprocket-wheel on the pedal-shaft, a forked lever having one end adapted to engage with said sprocket-wheel and its opposite end provided with a journal-bearing, the hub of the bearing-wheel provided with a crank-arm having cavities in its face, a second crank-arm provided with a screw-threaded pin, a tubular crank-pin having lugs in its end, and a bolt passing through the crank-pin and through the crank-arms, substantially as described. 4th. In a bicycle, the combination of a sprocket-wheel on the pedal-shaft, a forked lever having one end adapted to engage with said sprocket-wheel, and its opposite end provided with a journal bearing to receive a crank-pin, the axle of the rear-wheel, a disc mounted thereon, the frame of the machine carrying a ring receiving said disc and interposed ball-bearings, a cam secured to said ring and having an elliptical guide-way, a crank-pin carrying-arm pivoted to the disc and a crank-pin passing through a slot in said disc and into the guide-way, substantially as described. 5th. In a bicycle, the combination of a sprocket-wheel on the pedal-shaft, a forked lever having one end adapted to engage with said sprocket-wheel and its opposite end provided with a journal-bearing to receive a crank-pin, the axle of the rear-wheel, a disc mounted thereon and carrying a crank-pin, the horizontal braces of the machine carrying a ring in the same plane as said disc and receiving the latter, substantially as described. 6th. In a bicycle, the combination of the axle of the rear-wheel carrying a crank-pin, a forked lever having one end receiving said crank-pin and the opposite end provided with means to engage with a sprocket-wheel, said sprocket-wheel on the pedals-axle, a cam secured to the sprocket-wheel, the journal-bearing of the pedals-axle provided with external lugs, a lever pivoted to one of said lugs and carrying a roller for engagement with the cam and a rod connecting said lever with the forked lever, substantially as described.

**No. 57,724. Tire. (Bandage.)**

Thaddeus Galvin and Thomas Adams, both of Detroit, Michigan, U.S.A., 7th October, 1897; 6 years. (Filed 13th September, 1897.)

*Claim.*—1st. A single-tube, inflatable tire for vehicles, comprising a tube provided with a U-shaped depression on one side extending



nearly to the opposite face thereof; a rib or flange *E* having a rounded head, said head being designed to fit within the curved portion of the U-shaped section; and a shoe or tread closing the mouth of the U-shaped opening, and designed to complete the curvature of the tire. 2nd. A single-tube, inflatable tire for vehicles, comprising a tube provided with a U-shaped depression on one side extending nearly to the opposite face thereof, and forming an internal rib; and a shoe or tread secured within and closing the mouth of the section, thereby completing the contour of the tire.

**No. 57,725. Mortars and Processes for Manufacturing the Same. (Mortier et procédé de fabrication.)**

Eugene Weckwarth, Lima, Peru, and Max Hoeft, Berlin, Prussia, Germany, 8th October, 1897; 6 years. (Filed 19th March, 1895.)

*Claim.*—1st. A dry, pulverulent mass for the preparation of stucco work having a glossy surface, consisting of 10 grams of finely divided pure albumen (egg or serum albumen) and about 2,000 grams of pulverized slaked lime, substantially in the proportions and for the purposes described. 2nd. A dry, pulverulent mass for the preparation of stucco work having a glossy surface, consisting of a mixture of finely-divided pure albumen (egg or serum albumen), 2,000 grams of pulverized slaked lime, and 1,000 grams of gypsum, or the like, substantially in the proportions and for the purposes described. 3rd. The herein described process for preparing pulverulent mixtures serving for the preparation of stucco work having a glossy surface, consisting in grinding into a uniform and finely-divided powder pure albumen (egg or serum albumen) in a dry condition, together with slaked lime and a shortening material such as gypsum, substantially as set forth and for the purposes described.

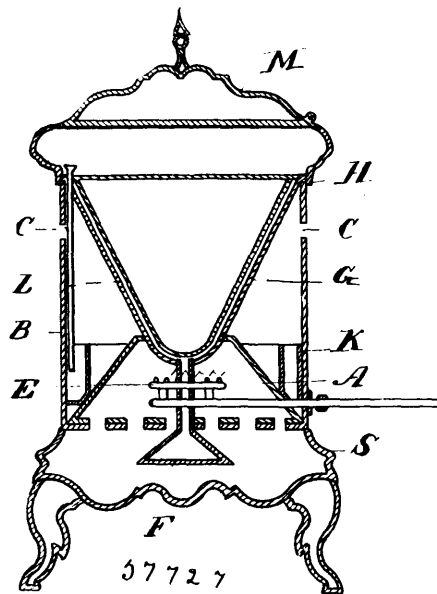
**No. 57,726. Mortars and Processes for Manufacturing the Same. (Mortier et procédé de fabrication.)**

Eugene Weckwarth, Lima, Peru, and Max Hoeft, Berlin, Prussia, Germany, 8th October, 1897; 6 years. (Filed 19th March, 1895.)

*Claim.*—1st. A wet mortar compound, consisting of the following ingredients: 19 grams of albumen (egg albumen or serum albumen) dissolved in 1 liter of water, 3 kilograms of lime paste, and about half the above volume of powdered gypsum, substantially in the proportions and for the purposes set forth. 2nd. A wet mortar compound, consisting of the following ingredients: 10 grams of albumen or casein dissolved in one liter of water, 3 kilograms of lime paste, 50 cubic centimeters of a 10 per cent potash lye, 120 cubic centimeters of a saturated solution of borax, and about half the volume of the above of powdered gypsum, substantially in the proportions and for the purposes set forth. 3rd. The herein-described process for preparing wet mortar compounds for artificial stone with a glossy surface, consisting in mixing a watery or alkaline solution of albumen and casein, or either one of the same, with about 3 kilograms of lime paste, and about one-half of the volume of the above of powdered gypsum, substantially as set forth and for the purposes herein described.

**No. 57,727. Gas Stove or Furnace.**

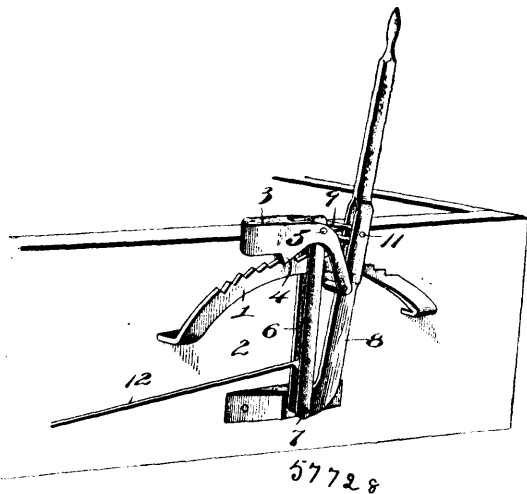
(*Poêle ou fournaise à charbon.*)



Lawrence George McKam and Peter Ryan, both of Toronto, Ontario, Canada, 8th October, 1897; 6 years (Filed 2nd April, 1897.)

*Claim.*—A gas stove or furnace comprising base cone A, outside body B, having apertures C, gas burner E, inverted cone G, pipe or funnel F, and inner cone L, all formed, arranged and combined as and for the purpose hereinbefore set forth.

**No. 57,728. Vehicle Brake. (*Frein de voiture.*)**

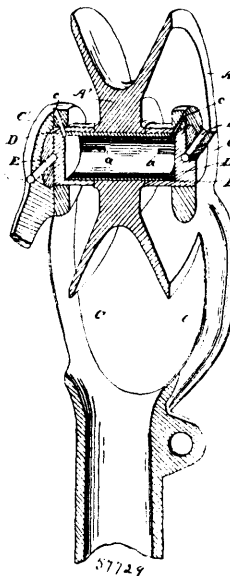


Joseph H. Miller and Andrew E. Lundberg, both of Oklahoma City, Oklahoma, U.S.A., 8th October, 1897; 6 years. (Filed 23rd September, 1897.)

*Claim.*—1st. In a device of the class described, the combination of a curved ratchet, an oscillating bar disposed radially with relation to the ratchet, an operating-lever fulcrumed at the lower end of the bar, located in advance of the same and having an intervening space between its rear edge and the front edge of the bar, a substantially L-shaped pawl pivoted at its angle on the oscillating bar, extending forward and rearward from the same and having its rear portion or arm weighted and engaging the ratchet, the front portion or arm extending downward below the ratchet and having a transverse portion located in advance of the bar and arranged in the space between the same and the lever, and means for connecting the lever and the bar to permit the former to have a limited movement independent of the latter, substantially as described. 2nd. In a device of the class described, the combination of a curved ratchet, a pair of oscillating bars located at opposite sides of the ratchet and pivoted at their lower ends, an operating-lever fulcrumed at its lower end between the lower terminals of the oscillating bars and provided, intermediate of its ends, with an opening receiving the

ratchet, an L-shaped pawl pivoted at its angle at the upper ends of the bars, extending forward and rearward from the same, a rearwardly extending arm being weighted and engaging the ratchet, and the forwardly extending arm being composed of two sides located at opposite sides of the ratchet and extending downward below the same, a transverse fastening device connecting the lower terminals of the sides of the pawl and located in the space between the lever and the oscillating bars, and a link connecting the lever and the bars, substantially as described. 3rd. In a device of the class described, the combination of a curved ratchet, an oscillating bar disposed radially with relation to the ratchet, an operating-lever fulcrumed on the pivot of the bar and located in advance of the latter, a link loosely connecting the operating-lever and the bar, and a substantially L-shaped pawl pivoted on the bar independently of the lever, having its rear arm weighted and engaging the ratchet, and having its front arm interposed between the lever and the bar and adapted to be engaged by the former, substantially as and for the purpose described.

**No. 57,729. Trolley Wheel. (*Roue de trollee.*)**

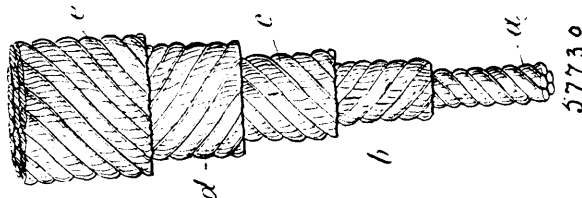


Richard Stewart McPhail, Toronto, Canada, 8th October, 1897; 6 years. (Filed 5th February, 1896.)

*Claim.*—1st. The combination with the trolley wheel and hollow axle secured from rotation within the hub and extending out from each end thereof, of cylindrical cups fitting over the outer end of the hollow axle and bearings for such cylindrical cups, and means for securing the cups securely from rotation in such bearings, as and for the purpose specified. 2nd. The combination with the trolley wheel and hollow axle secured from rotation within the hub and extending out from each end thereof, of cylindrical cups fitting over the outer ends of the hollow axle and bearings for such cylindrical cups and pins E extending through the outer ends of the cylindrical cups and bearings, as and for the purpose specified. 3rd. The combination with the trolley wheel and hollow axle secured from rotation within the hub and extending out from each end thereof and notches in the outer ends of the hollow axle, of cylindrical cups fitting over the outer ends of the hollow axle and bearings for such cylindrical cups, and means for securing the cups securely from rotation in such bearings, as and for the purpose specified.

**No. 57,730. Rope Circular Cross Section.**

(*Corde en section circulaire croisee.*)

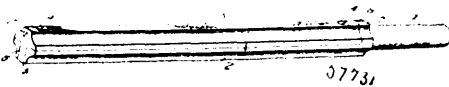


Berhard Kirsh, Vienna, Lower Austria, Austria-Hungary, 8th October, 1897; 6 years. (Filed 11th May, 1896.)

*Claim.*—As a new article of manufacture, a round rope composed of concentric layers of threads or cords of vegetable fibrous material, the said layers having alternately a positive and negative direction of twist or lay, substantially as herein described.

**No. 57,731. Expanding Reamer.**

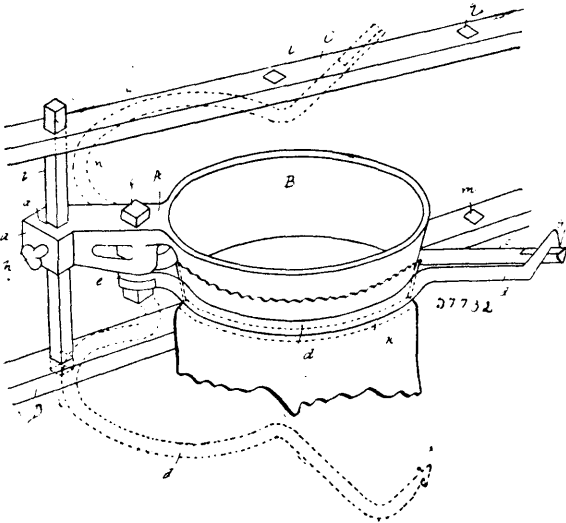
(*Aleoir à expansion.*)



William Thomas Beard, Boise City, Idaho, U.S.A., 8th October, 1897; 6 years. (Filed 10th August, 1897.)

*Claim.*—1st. An expanding reamer comprising the cylindrical shank 1 and the integral bar 2, in combination with the movable bar 3 and the adjusting screws 4-4, substantially as shown and described. 2nd. An expanding reamer comprising the solid cylindrical shank 1, the integral fluted bar 2, provided with the guide slots 5 and 7, in combination with the movable fluted bar 3, formed with the integral guide tongues 6 and 8, and adjusting screw 4-4 adapted to adjustably secure said bar 3 to the stationary bar 2, substantially as shown and described. 3rd. An expanding reamer comprising the cylindrical shank 1, provided with the integral fluted bar 2, having the guide slots 5 and 7 and the central guide recess 9, the parallel fluted bar 3, formed with the integral guide tongues 6 and 8 on its outer ends and with the central guide lug 10, in combination with the adjusting screw 4-4, provided with the integral collars 14 and grooves 15, and the retaining screws 17 formed with conical ends 16 projecting radially into the groove in said adjusting screws, substantially as shown and described.

**No. 57,732. Bag-holder. (Accroche-sac.)**



Hector C. McQuarrie and James Boyd Rutherford, both of Stonewall, Manitoba, Canada, 8th October, 1897; 6 years. (Filed 25th September, 1897.)

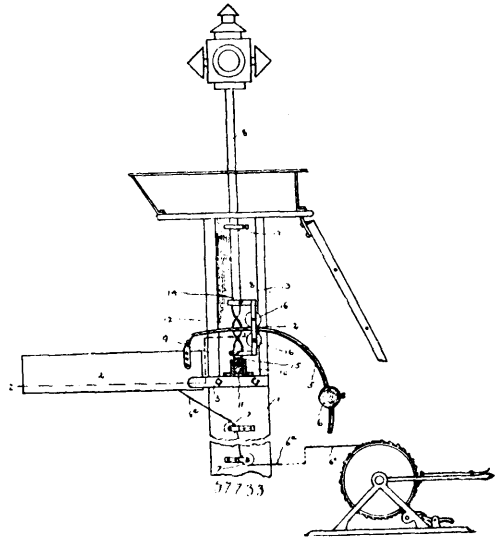
*Claim.*—1st. In a bag-holder, the combination of a bracket having a ring supported thereby, adapted to receive the mouth of the bag, clamping arms arranged to engage with said bag whereby it is clamped upon said ring, and means for supporting said bracket, substantially as described. 2nd. In a bag-holder, a combination of a bracket, a ring supported by said bracket adapted to engage within the mouth of said bag, clamping arms arranged to fit the circle of said ring and to clamp said bag to it, a vertical bar arranged to engage through a suitable opening in said bracket, whereby said holder may be adjusted vertically and held in its adjusted position, substantially as described. 3rd. In a bag-holder, the combination of a bracket A, having a ring B, supported thereby, said ring having a flange formed upon its lower edge, the clamping arms c and d, pivoted to said bracket and constructed to conform to the circle of said ring, and having the outward extending parallel portions c<sup>1</sup>, d<sup>1</sup>, terminating with the catch d<sup>1</sup>, the vertical bar b, arranged to engage freely through the opening a<sup>1</sup>, in said bracket, means for securing said bracket in its adjusted position upon said bar, the horizontal pieces C, D, provided with suitable openings to receive said bar b, and means for securing said vertical bar in position, substantially as described.

**No. 57,733. Semaphore. (Sémaphore.)**

Moses Lalonde and William H. Greenwood, both of Mowers, New York, U.S.A., 8th October, 1897; 6 years. (Filed 1st October, 1897.)

*Claim.*—1st. The combination with a post, of a signal arm pivoted thereto and provided with a weighted curved arm, a rotatable lantern standard mounted in bearings upon said post and having a cam, a movable yoke mounted on said standard and having a sliding con-

nection therewith and with the curved arm, and means for moving said signal arm. 2nd. The combination with a post, of a pivoted



signal arm, and means for drawing the same downwardly, a weighted curved arm secured to said signal arm, a rotatable lantern standard mounted in bearings on said post, and provided with a cam at its lower end portion, a yoke slidingly mounted upon said standard, and provided at its lower end with a slot to engage said cam, and guide rollers on said yoke between which the said curved arm is situated.

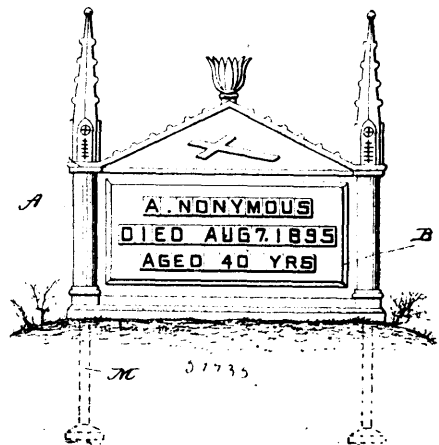
**No. 57,734. Manufacture of Liquid Germ Extract.**

(*Fabrication d'extrait de germes liquides.*)

Alexander Mackey Parker, London, England, 8th October, 1897; 6 years. (Filed 31st August, 1897.)

*Claim.*—1st. The described process for the manufacture of liquid germ extract, such process consisting in heating germ of wheat with water, adding bicarbonate of potash, straining the mixture, adding a suitable preservative to the liquor and then allowing the latter to settle, evaporating the same, filtering and adding extract of malt, substantially as described. 2nd. The addition to a liquid extract of the kind described, after further evaporation, of a gelatinous or jellying mixture, substantially as and for the purpose hereinbefore described. 3rd. The described process for the manufacture of germ extract in a solid or powdered form, such process consisting in adding flour or other suitable cereal or farinaceous product to a liquid germ extract prepared according to the process referred to in claim 1, mixing the ingredients together and then drying the mixture at a low temperature, substantially as described. 4th. As an article of manufacture, liquid germ extract prepared as hereinbefore described. 5th. As an article of manufacture, germ extract in a solid or powdered form prepared as hereinbefore described.

**No. 57,735. Adjustable Letters and Figures for Inscribing Monuments. (Caractères pour monuments.)**

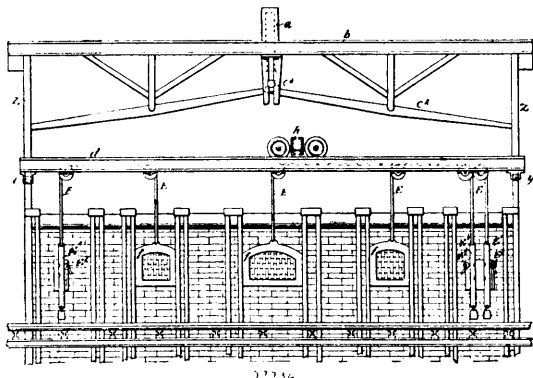


Patrick S. McGee, Dodgeville, Mass., U.S.A., 8th October, 1897; 6 years. (Filed 28th August, 1897.)

*Claim.*—1st. In a monument, the combination of a name plate B, provided with a slot a, a case C, extending from the rear face of said name plate back of said slot, a letter block D, adjustable in said slot and extending into the case and having a perforation, a pin m, extending through said perforation, with the filling material E, in said case, capable when solidified to hold said block and pin in position, substantially as shown and described. 2nd. In a monument, the combination of a name plate B, provided with a slot a, a case C, extending from the rear face of said name plate back of said slot, and having a rearward extension reaching into said case, a fastening bag E, in said case engageable with the rear extension of said block, means within the case adapted to draw the letter block into firm contact with the name plate, and a filling material capable when solidified to hold said block in position, substantially as shown and described.

**No. 57,736. Apparatus for Charging Furnaces.**

(Appareil à alimenter les fournaies.)



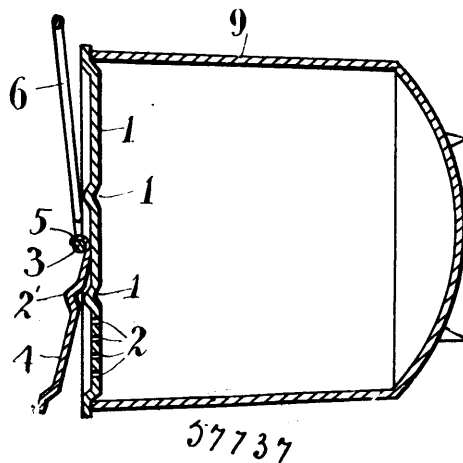
Joseph Paul Eck and Robert Murton, both of Muncie, Indiana, U.S.A., 8th October, 1897; 6 years. (Filed 1st October, 1897.)

*Claim.*—1st. An apparatus for charging furnaces consisting of two tracks arranged parallel with the front of the furnace, a charger track adapted to travel thereon, means for raising and lowering one of the first named tracks, means for causing the charger track to travel, a charging apparatus suspended from the charger track, and mechanism carried thereby for conveying material to the furnace, as specified. 2nd. A furnace charging apparatus consisting of two tracks arranged parallel with the face of the furnace, means for raising and lowering the track next the furnace, a charger track lying at right angles to the first two tracks and supported by swivelled trucks thereon, means for revolving certain wheels of said trucks in unison whereby the charger track may be conveyed from one furnace door to another, a charger suspended from the charger track, a rotatable rod carried by the charger, prongs carried by said rod, means for causing said prongs to engage with the pan, and means for revolving said rod after the pan has been conveyed to the furnace as specified. 3rd. An apparatus for charging furnaces consisting of a vertically movable track arranged above the doors of the furnace and parallel with the face thereof, mechanism for raising and lowering said track, a second track arranged parallel with the first named track, but at a distance therefrom, a charger track, swivelled trucks upon which the last named track is mounted, said trucks adapted to travel upon the first named tracks, gearing carried by the charger track for imparting motion to the truck wheels whereby said charger track may be conveyed from one portion of the furnace to another, a charger suspended from the charger track and consisting of a suitable frame, a casting supported thereby, a second casting swivelly connected to the first named casting, a charger rod journalled in the last named casting, means for moving said rod longitudinally relative to its casting, means for oscillating the last named casting upon its swivelled centre, means for causing the charger frame to travel upon its tracks, and means for revolving the charger rod after it has conveyed the pan to the furnace, substantially as shown and described. 4th. In combination with a furnace of the character described, doors therefor adapted to move vertically, bars connected thereto by cables which pass over suitable guide pulleys, said bars having notches formed therein adapted to engage with pins suitably located, cams for forcing either of said bars into engagement with said pins, and means for raising said doors when the charger elevates the pan containing the material to be conveyed to the furnace, as specified. 5th. In combination with a series of doors of the character described, a track arranged above said doors and parallel with the face of furnace, means, such as an hydraulic cylinder, for elevating said track whereby said doors will be operated, a second track arranged parallel with the first named track, but at a distance therefrom, a charger track mounted upon the two first named tracks by swivelled trucks so as to travel crosswise of the furnace, a charger frame suspended from the last named track and adapted to travel thereon, means for causing said charger frame to move to and fro upon its track, a charger rod journalled in the lower portion of the charger, a trip rod arranged in connection with

the charger track, mechanism connected with the charger rod, and travelling upon said trip rod whereby when the charger conveys the material to the furnace it will be revolved upon its axis for dumping said material, substantially as shown and described. 6th. In combination with a furnace of the character described, and a charging apparatus therefor, of a series of doors adapted to slide vertically, cables suspending said doors, said cables passing over suitable pulleys, a vertically movable track in which said pulleys are journalled, notch bars suspended from the outer ends of said cables, cams for forcing said notches into engagement with suitable pins, hydraulic mechanism for elevating said track, and means for bringing about the proper movements of the charger when the doors are elevated, as specified. 7th. In combination with the tracks described, a charger suspended therefrom, a casting swivelled to the bottom of said charger rod journalled in this casting, a pinion carried by the charger rod, rack-bars adapted to engage with said pinion, rods extending upward from said rack-bars to the trip bars arranged upon the charger track and inclines formed upon the last named bars whereby when the charger is run forward, the charger rod will be turned upon its axis, substantially as shown and described. 8th. In combination with a charging apparatus of the character described, a casting swivelled to the bottom of the charger frame, a charger rod journalled in said casting, prongs carried by said rod and mechanism for oscillating the casting upon its swivelled point, substantially as and for the purpose set forth. 9th. In combination with a travelling charger track of the character described, suitable gearing and clutch mechanism for causing said track to travel crosswise of the furnace, a charger suspended from said track and suitable clutch mechanism for causing said charger to move to and fro relative to the furnace when the movement of the charger track is stopped, as specified. 10th. In combination with a casting swivelled to the bottom of the charger rod journalled therein, a rack bar carried by said rod, a pinion meshing with said rack bar, and a hand wheel for moving the charger bar longitudinally to and fro relative to the casting, as specified. 11th. In combination with a charger rod of the character described, two prongs carried thereby, and a charging pan with which said prongs are adapted to engage whereby it may be conveyed to the furnace and dumped, as specified. 12th. In combination with a furnace of the character described, two tracks lying parallel with said furnace, two trucks adapted to travel upon said tracks, a charger track swivelled to the trucks, a tumbling rod connected with certain wheels of the trucks by universal joints, and means for revolving these wheels, substantially as and for the purpose set forth.

**No. 57,737. Kettle Vail and Cover.**

(Couvercle de bouilloire.)



Charles Peterson, Omer, Michigan, U.S.A., 8th October, 1897; 6 years. (Filed 24th September, 1897.)

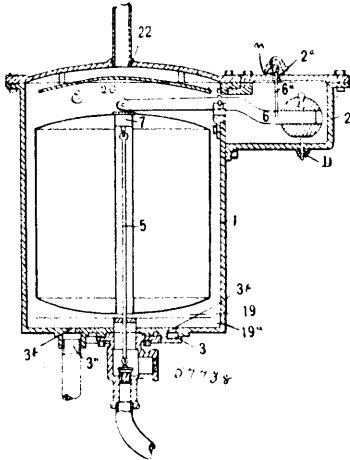
*Claim.*—A cover having the raised ring 1<sup>1</sup> around the centre, and the rod 3 passing through the ring to form a part of the hinge, combined with the supplemental part 4 having its inner end formed into a hook to catch under the rod, and provided with a raised ring 2<sup>1</sup> to catch over the one 1<sup>1</sup> and thus prevent any possibility of the part 4 from becoming accidentally detached, substantially as shown.

**No. 57,738. Gas Regulator. (Régulateur de gaz.)**

Edward J. Frost, Philadelphia, Pennsylvania, and Benjamin Middleitch, Detroit, Michigan, both in the U.S.A., 8th October, 1897; 6 years. (Filed 14th August, 1897.)

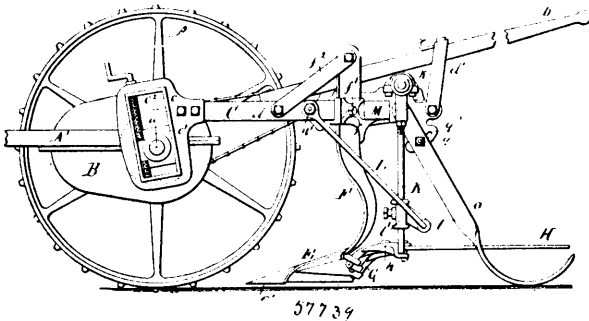
*Claim.*—1st. The combination with a mixing chamber having a gas inlet port and a gas eduction port, of a lever pivoted in said chamber having on one arm a float and on the other arm a weight, an air inlet port adapted to deliver air to said chamber (at a pressure equal to or greater than the gas pressure at the gas inlet port) and a valve controlling said air inlet port and connected with said

lever, whereby the admission of air to said mixing chamber is regulated and varied in proportion to the richness of the gas enter-



ing said chamber, substantially as described. 2nd. In devices for regulating the quality of gas, the combination of a mixing chamber provided with an inlet port leading from a gas producer, an air inlet port leading from an air blast, and an eduction port leading to the burners, of air inlet valve C and counterbalanced float B, so connected to each other that the amount of opening of said valve is automatically regulated by the density of the gas admitted to said mixing chamber, substantially as described. 3rd. The combination of a mixing chamber 1, provided with induction ports for the admission of gas and air respectively and with an eduction or delivery port, an extension 2, float B, a central passage-way therethrough, a valve stem 5, balance lever 6, counterbalance F, valve C, and an adjusting device connected with said lever whereby the adjustment of said counterbalance can be effected and the admission of air to said chamber be automatically regulated by the density of the gas admitted to said chamber, substantially as described. 4th. The combination of a mixing chamber provided with eduction and induction ports, a float B, having a central passage therethrough, a lever 6, provided with an adjusting weight stem 6<sup>a</sup>, a counterbalance F, the valve rod 5 connected at its upper end to the lever 6, and at its lower end to the valve C, and means for regulating the weight of the counterbalance, substantially as described.

**No. 57,739. Potato Digger.** (*Scarificateur à patates.*)

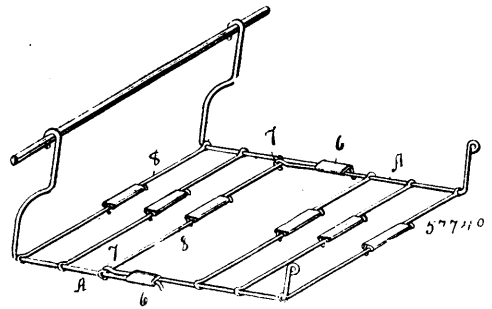


Charles James Cummings, Tully, New York, U.S.A., 8th October, 1897; 6 years. (Filed 24th August, 1897.)

*Claim.*—1st. In a potato digger, the combination with the scoop having at its rear ends sockets which are open upwardly and downwardly, of tines having shoulders by which they rest on the sockets and having below the shoulders tenons which extend downwardly through the sockets and fit snugly against the sides thereof but have play therein at the front and rear, and fastenings whereby the tines are loosely held in the sockets, substantially as set forth. 2nd. In a potato digger, the combination with the scoop having at its rear end tines which project upwardly and rearwardly from the scoop, of a shaking separator arranged in rear of the scoop and higher than the same and having at its front end tines which project downwardly and forwardly from the separator into the spaces between the upwardly projecting rear tines of the scoop, substantially as set forth. 3rd. The combination with the separator cross-head, of connected main tines resting with their front portions upon the cross-head, front tines provided with sockets which are open on their rear sides and which embrace the front and bottom of the cross-head and the front and top of the connecting portion of the main tines and upright fastening bolts arranged in rear of the cross-head and connecting the upper and lower portions of the sockets of the front

tines, substantially as set forth. 4th. The combination with the shaking separator, its actuating shaft and the draft bars, of actuating rods connecting said shaft with the separator and capable of lengthwise adjustment for raising and lowering the separator, angle braces pivoted at their upper ends to the draft bars, and supporting arms connected with the lower ends of the braces and made vertically adjustable on the actuating rods, substantially as set forth. 5th. The combination with the shaking separator, its actuating crank shaft and the draft bars, of heads connected with the cranks and having screw sockets, rods having screw-threaded upper ends engaging in said sockets and connected at their lower ends with the separator, angle braces pivoted at their upper ends to the draft bars and supporting arms connected with the lower ends of the braces and made vertically adjustable on the actuating rods, substantially as set forth. 6th. The combination with the scoops and the shaking separator, of draft bars carrying the scoops and the separator and provided at their front ends with upright slotted frames, ground wheels mounted on a shaft which passes through said slotted frames, bearing boxes mounted on said shaft and bearing with their front and rear sides against the front and rear sides of the slotted frames, and means whereby the slotted frames can be raised and lowered on said boxes, substantially as set forth. 7th. A potato digger provided with a pair of scoops or ploughs, each having a main cutting edge extending from the point inwardly and rearwardly and an auxiliary cutting edge extending from the point outwardly and rearwardly, the upper surface of each scoop or plough sloping inwardly to the main cutting edge and outwardly to the auxiliary cutting edge, substantially as set forth.

**No. 57,740. Display Rack.** (*Râtelier-montre.*)

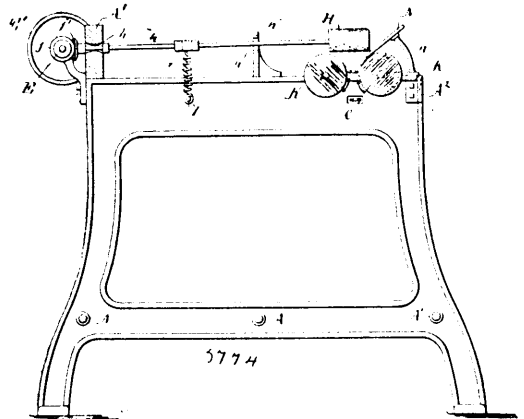


James Munroe Taylor, Dubois, Pennsylvania, U.S.A., 8th October, 1897; 6 years. (Filed 22nd July, 1897.)

*Claim.*—1st. A display rack consisting of side pieces, cross-bars connecting the side pieces, said side pieces having laterally projected arms at their lower ends and laterally projected arms at their upper ends which project outwardly a greater distance than the lower arms, and which are provided with hooks, substantially as set forth. 2nd. A display rack consisting of the side pieces and the cross-bars uniting the side pieces, each of the side pieces formed of two slidably-connected sections, one of which is provided with a hook to engage one of the cross-bars, and each of the cross-bars being formed of two slidably-connected sections, substantially as set forth. 3rd. A display rack consisting of two suspending arms, adjustable parallel side pieces provided with hooks 7-7 and sleeves 6-6, and a cross-bar 8, substantially as set forth.

**No. 57,741. Corn silking Machine.**

(*Machine à enlever les soies du blé d'inde.*)

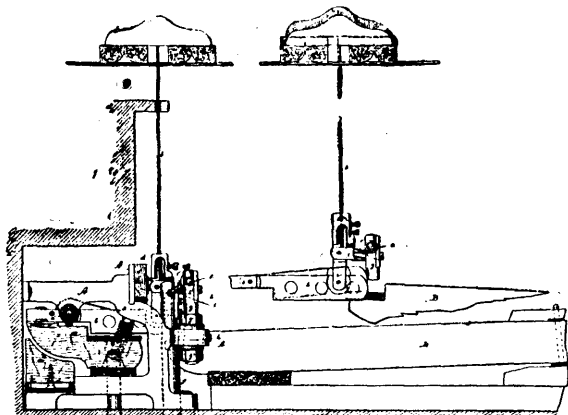


John Chauncey McIntyre, Hoopston, Illinois, U.S.A., 8th October, 1897; 6 years. (Filed 25th August, 1897.)

*Claim.*—1st. The combination with a guide or support for the ears of corn, of rotary silking and propelling brushes arranged above

said guide or support, with their axes crosswise thereof and adapted to run in contact with the ears, and driving mechanism for turning the brushes in the direction in which the ears pass through the machine, whereby the ears are silked and at the same time propelled through the machine by the frictional contact of the brushes therewith, substantially as set forth. 2nd. The combination with a pair of rollers arranged to face each other and driven to rotate with their opposing surfaces in opposite directions, said rollers supporting the ears upon the upper downwardly converging portions of their opposing surfaces and turning the ears while supporting the same, of a silking brush which is arranged above said rollers and whereby the ears are held down upon the supporting rollers, while it removes the silk from the ears, substantially as set forth. 3rd. The combination with a pair of rollers arranged to face each other and driven to rotate with their opposing surfaces in opposite directions, said rollers supporting the ears upon the upper, downwardly converging portions of their opposing surfaces and turning the ears while supporting the same, of a silking brush which is arranged above said rollers and transversely to the latter, substantially as set forth. 4th. The combination with a pair of rollers arranged to face each other and driven to rotate with their opposing surfaces in opposite directions, said rollers supporting the ears upon the upper, downwardly converging portions of their opposing surfaces and turning the ears while supporting the same, of a silking brush which is arranged above said rollers, a feed trough arranged in line with the upper opposing surfaces of said rollers, and a carrier running along the bottom of said trough and conveying the ears to said rollers, substantially as set forth. 5th. The combination with a pair of rollers arranged to face each other and driven to rotate with their opposing surfaces in opposite directions, said rollers supporting the ears upon the upper, downwardly converging portions of their opposing surfaces and turning the ears while supporting the same, of a silking brush which is arranged above said rollers and extending beyond both ends thereof whereby the receiving portion of said carrier serves to feed the ears to the rollers and the tail portion of said carriers serve to remove the ears from the roller, substantially as set forth. 6th. The combination with a pair of longitudinal ear-supporting and turning rollers driven to rotate in the same direction, of vertically yielding shafts arranged transversely above said rollers, brushes mounted on said shafts and adapted to run in contact with the ears of corn, and a carrier for delivering the ears of corn to said brushes, substantially as set forth.

**No. 57,742. Damper-Action for Grand Pianos.**  
(*Sourdine pour pianos.*)



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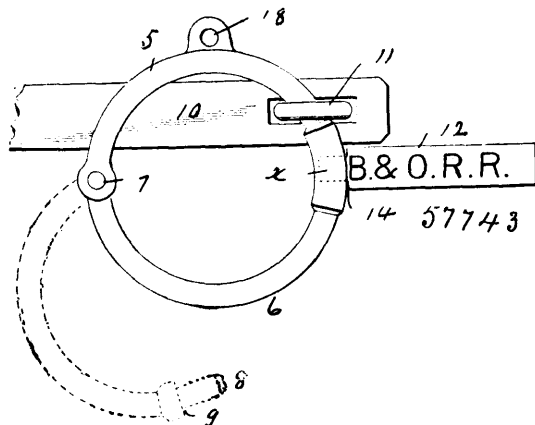
Adam Nickel, New York, State of New York, U.S.A., 8th October, 1897; 6 years. (Filed 4th September, 1897.)

*Claim.*—1st. In a damper-action for grand pianos, the combination of damper-brackets, with vertically and horizontally adjustable bearings secured thereto, and with a sustaining rod hung within such bearings, substantially as specified. 2nd. In a damper-action for grand pianos, the combination of a damper-bracket, having a forwardly-extending slotted arm, with a screw having a perforated head and adjustably supported by the arm, and with a sustaining-rod hung within the perforated screw-head, substantially as specified. 3rd. In a damper-action for grand pianos, the combination of a damper-bracket having a forwardly-extending slotted arm with a flattened perforated screw, a sustaining-rod hung within the perforation of the screw, and with a pair of nuts and a set-screw for causing a vertical and horizontal adjustment of the screw, substantially as specified.

**No. 57,743. Seal Lock.** (*Serrure à cachet.*)

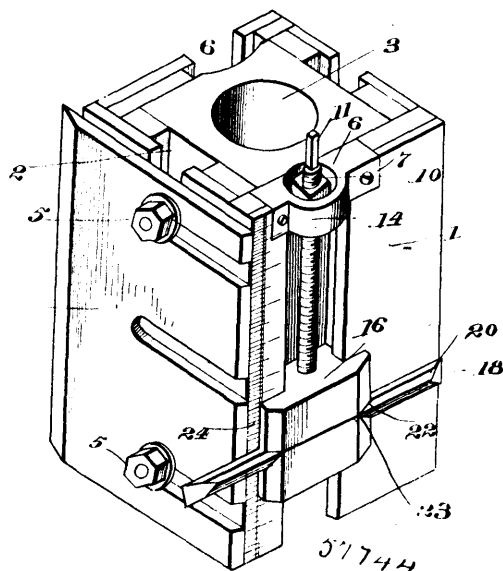
Nathan Carr Pond, Port Chester, New York, U.S.A., 8th October, 1897; 6 years. (Filed 30th September, 1897.)

*Claim.*—In seal locks, the combination of a body and a shackle portion hinged together at one side, one of the said portions being



provided with a tenon and the other having a socket to receive it, the tenon and one side of the socket having apertures registering with each other when the lock is closed, and a seal of thin sheet material provided with a tongue of a width to fit closely to the said apertures and bent bodily to one side, forming an anchoring fluke the whole width of the tongue, substantially as described.

**No. 57,744. Planer Head.** (*Mandrin de machine à raboter.*)



Side Ellerbe McDuffie, Alcoln, South Carolina, U.S.A., 8th October, 1897; 6 years. (Filed 6th September, 1897.)

*Claim.*—1st. The combination with a planer head, of a box carried thereby, a rotatable member adapted to turn in said box, a screw threaded through said member, a clamp member through which the screw loosely passes, a second clamp member through which the screw is threaded, and a tool held by said clamp. 2nd. The combination with a planer head, of a box connected thereto which is provided with separated shoulders, a nut having a base which is received between said shoulders, a screw threaded through the nut and provided with a blank portion and a head at its lower end, a clamp member loosely received on the blank portion, a second clamp member through which the screw is threaded, and a tool located between said clamp members.

**No. 57,745. Jar and Cover.** (*Jarre et couvercle.*)

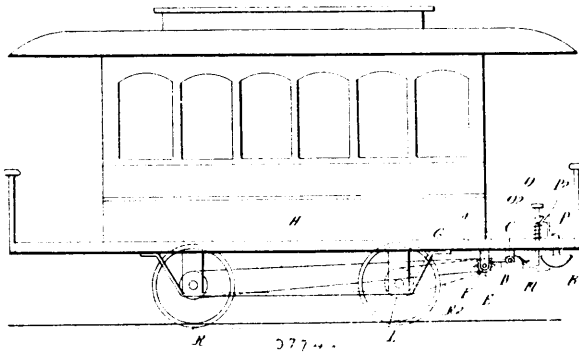
Ludwig Wurzburg, Halifax, Nova Scotia, Canada, 8th October, 1897; 6 years. (Filed 22nd September, 1897.)

*Claim.*—1st. A jar or other receptacle for preserves or the like made of an uniform internal and external diameter, a cover for said receptacle with an interrupted flange on its under surface to lie inside the walls of the jar or receptacle, and an elastic packing ring lying outside said flange on the cover and on the top of the walls of the jar or receptacle for the purpose of effecting an air-tight closure between the jar and the cover under the action of a vacuum pro-





lever adjacent thereto, and a sprocket or toothed wheel, by which the lever is operated to sound the gong, said wheel being operated



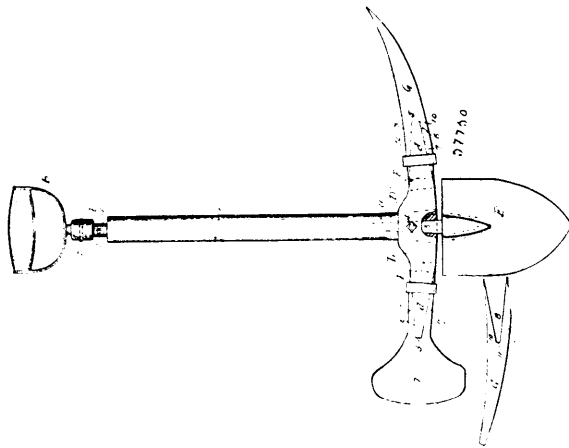
by a belt connected with one of the axles of the car, and means for preventing the operation of said lever, substantially as shown and described. 2nd. The combination, with the platform of a car, of a signal device consisting of a gong suspended therefrom, a pivoted lever adjacent thereto, a toothed or sprocket wheel by which said lever is operated to sound the gong, a belt or chain connected with a wheel mounted on one of the axles of the car for operating said toothed or sprocket-wheel, and a spring for throwing the lever into operative position, and means for preventing the operation of said lever, substantially as shown and described. 3rd. The combination with a platform of a car, of a gong suspended therefrom, a spring-operated lever pivotally supported adjacent thereto, a toothed or sprocket-wheel mounted adjacent to said lever for operating the same, and a belt or similar device mounted on a wheel connected with one of the axles of the car for operating said toothed or sprocket-wheel, and a vertically-movable bolt which passes through the platform of the car, and is adapted to operate in connection with said lever, substantially as shown and described.

**No. 57,749. Treatment of Complex Sulphide Ores.**  
(*Traitement de minerai de sulfure.*)

Francis Ellershansen, London, England, 9th October, 1897; 6 years. (Filed 26th August, 1897.)

*Claim.*—1st. In the treatment of complex sulphide ores containing lead, silver and zinc, the separation of the zinc by the combined processes of roasting and leaching, substantially as hereinbefore described. 2nd. In the treatment of complex sulphide ores containing lead, silver and zinc, the separation of the zinc by roasting the pulverized ore at a low red heat, leaching with water (acidulated with sulphuric acid) so as to dissolve out the zinc sulphate and expose fresh surfaces of zinc sulphide for a further roasting, and so on until the zinc is practically removed, substantially as described.

**No. 57,750. Combination Tool for Prospecting and Mining.** (*Outil pour l'exploitation des mines.*)



Edward Adams, Ballard, Washington, U.S.A., 9th October, 1897; 6 years. (Filed 21st September, 1897.)

*Claim.*—1st. In a tool of the class described, the combination with the eye, of a handle fitting said eye, and having a longitudinal socket in the end thereof, and a tool provided with a shank fitting said socket, substantially as described. 2nd. In a tool of the class described, the combination with the eye having a threaded aperture through the wall thereof, and a threaded member therein, of a handle fitting said eye and having a longitudinal socket in the end thereof, with an aperture in the wall thereof registering with said threaded aperture, and a tool provided with a shank to fit said

socket, and retained by said threaded member, substantially as described. 3rd. In a tool of the class described, the combination with the eye having opposite tapering ends, of tools having shanks adapted to engage said ends between furcations thereon, and a locking-ring to bind said furcations upon the tapering surfaces of said ends, substantially as described. 4th. In a tool of the class described, the combination with the eye having opposite truncated wedge ends, of tools having shanks adapted to engage opposite faces of said wedge-ends and the truncated portions thereof between furcations thereon, and a locking-ring to bind said furcation upon said faces by outward movement thereof, substantially as described. 5th. In a tool of the class described, the combination with the eye having opposite ends projected and forming truncated wedges, one face of each wedge convex in form, of tools having shanks forming furcations to fit upon the faces of each projected end, and a locking-ring to bind said furcations upon said faces by an outward movement thereof, substantially as described. 6th. In a tool of the class described, the combination with the eye having opposite truncated wedges formed integral therewith, one face of each wedge convex and having a slight protuberance thereon, of tools having bifurcated shanks to receive said wedges and meet the faces and ends thereof, and a locking-ring to bind said furcations upon said faces by an outward movement, substantially as described. 7th. A tool of the class described, comprising an eye having opposite truncated wedges formed integral therewith, a threaded aperture in the wall thereof, and a threaded member in said aperture, a handle in said eye with a removable head therefor, a longitudinal tapering socket in the opposite end, and an aperture transverse the wall registering with said threaded aperture, a tool with a shank to fit said socket and secured by said threaded member, tools having bifurcated shanks adapted to fit upon said wedges, and locking-rings to bind said furcations upon the faces of said wedges by outward movement thereof, substantially as described.

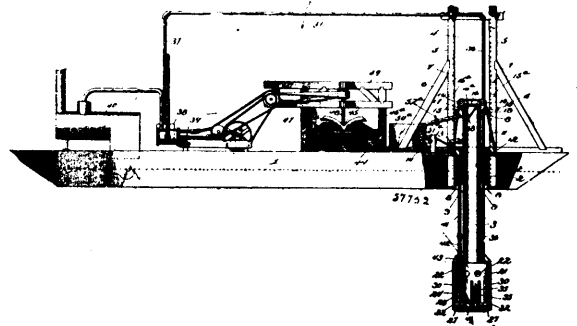
**No. 57,751. Degerming of Maize or other Cereals.**

(*Appareil à enlever les germes du maïs, etc.*)

William Muir Mackean, James Anderson Dunlop Mackean and Norman Macgregor Mackean, all of Saint Mirrens Works, Paisley, Renfrewshire, Scotland, 9th October, 1897; 6 years. (Filed 9th December, 1896.)

*Claim.*—The method of degerming maize or other cereals which consists in first steeping the grain in water at a suitable temperature, then grinding it between rollers, adjusted so as not to destroy the germ, the starch particles are then washed out, and the grist dried, it is then mixed with water of a density of twenty to thirty degrees Twaddle which is agitated gently, the germs on rising to the surface are floated off, the grist may then be removed, and the germs washed and dried, substantially as set forth.

**No. 57,752. Gold Mining Dredge.** (*Machine à draguer.*)

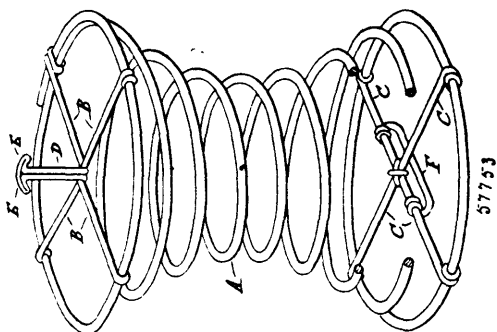


Donald Angus McCaskill and William E. Leanor, both of Lytton, British Columbia, Canada, 9th October, 1897; 6 years. (Filed 4th November, 1895.)

*Claim.*—1st. In a dredge, a barge, a submergeable tubular caisson-body mounted for adjustment on the barge, a compressed-air-pipe connection with the caisson-body, and a flexible pump suction pipe passed into the caisson-body near the lower end of the latter, said pump suction pipe having a sliding connection with the caisson-body at the point where it enters the same, substantially as set forth. 2nd. In a mining dredge, a barge provided with a vertically-disposed opening, a guide-tower built on the barge over the opening therein, a tubular submergeable caisson-body arranged to work within the guide-tower and provided on its upper end with exterior guide-pulleys, an adjusting cable arranged to be drawn downward over the guide-pulleys at the top of the caisson-body, means for positively fastening the caisson-body in its lowered position, and suitable compressed air and suction pipe connections with said caisson-body, substantially as set forth. 3rd. In a dredge, a barge provided with a vertically-disposed opening, a guide-tower built on the barge over said opening and provided with corner uprights having a series of bolt openings therein, a tubular submergeable caisson-body arranged to work within the guide tower and provided with a series of radial

bracket-arms carrying guide-rollers engaging with said corner-uprights, means for lowering said caisson-body, stop-bolts adapted to be inserted in said bolt-openings above said bracket-arms, and suitable compressed air and suction pipe connections with said caisson-body, substantially as set forth. 4th. In a dredge, a barge provided with a vertically-disposed opening, a guide-tower built on the barge over said opening, a tubular submergeable caisson-body arranged to work within the guide-tower and provided on its upper end with exterior guide-pulleys, a fixed guide-pulley mounted on the deck of the barge at one side of the caisson-body, an adjustable secured fast at one end at a point opposite the fixed guide-pulley, and passed over the guide-pulleys on the caisson-body and under the fixed guide-pulley, an adjusting device connected with said cable, and suitable compressed air and suction pipe connections with said caisson-body, substantially as set forth. 5th. In a dredge, the combination of a barge, a vertically-adjustable submergeable caisson-body mounted on the barge and provided at its extreme upper end with a door-inclosed manhole and near its lower end with a vertical series of spaced air-escape valves, and suitable compressed-air and suction pipe connections with said caisson-body, substantially as set forth. 6th. In a dredge, the combination of a barge, a vertically-adjustable submergeable caisson-body mounted on the barge and provided with a door-inclosed manhole at its upper end and at its lower end with an enlarged portion having in one side a door-opening, an inwardly-opening discharge-door mounted within the enlarged lower end of the caisson-body over said side door-opening, and suitable compressed-air and suction pipe connections with said caisson-body, substantially as set forth. 7th. In a dredge, a vertically-adjustable submergeable caisson-body mounted on the barge and provided at its upper end with a door-inclosed manhole, a flexible air-tight sheeting connected at one edge to the extreme lower edge of the caisson-body, adjusting devices connected with the other edge of said sheeting and adapted to extend the same below the lower end of the caisson-body, and suitable compressed-air and suction pipe connections with the caisson-body, substantially as set forth. 8th. In a dredge, a barge, a vertically-adjustable submergeable caisson-body mounted on the barge and provided with an enlarged lower end portion having near its lower edge a circular series of inwardly-projecting guide-lugs having guide-openings therein, sliding extension-bolts mounted in the guide-openings of said guide-lugs, a catch device for securing the extension-bolts in adjusted positions, a flexible air-tight sheeting arranged to extend circularly around the entire lower end of the caisson-body and secured at one edge to the lower edge of the caisson-body, the other edge of said sheeting being secured at the lower ends of the sliding extension-bolts, and suitable compressed-air and suction-pipe connections with the caisson-body, substantially as set forth. 9th. In a dredge, a barge, a vertically-adjustable submergeable caisson-body mounted on the barge and provided with an enlarged lower end portion having a stuffing box in its top, a compressed-air-pipe connection with the enlarged lower end of the caisson-body, and a flexible pump suction-pipe having a stiff sliding pipe-section arranged to work in said stuffing-box, substantially as set forth. 10th. In a dredge, a barge, a submergeable caisson-body mounted for adjustment on the barge, a flexible compressed-air-supply-pipe connected with the caisson-body, a flexible pump suction-pipe having its lower end arranged within the lower end of the caisson-body, a side inclosed pump-chamber arranged on the deck of the barge, an interior annular discharge trough or basin arranged within the pump-chamber, a suitable pump arranged within the pump-chamber and suitably connected with said suction-pipe, and sluice-box connections with said discharge trough or basin, substantially as set forth. 11th. In a dredge, a barge, a submergeable caisson-body mounted for adjustment on the barge, suitable compressed air suction-pipe connections with the caisson-body, an air-tight collecting-box arranged on the deck of the barge, a flexible pipe connection between said collecting-box and the upper end of the caisson-body, and a cut-off clamp adapted to engage said flexible pipe connections at a point intermediate of its ends, substantially as set forth.

**No. 57,753. Fastening of Furniture Spring.**  
(*Attache de ressorts de meubles.*)

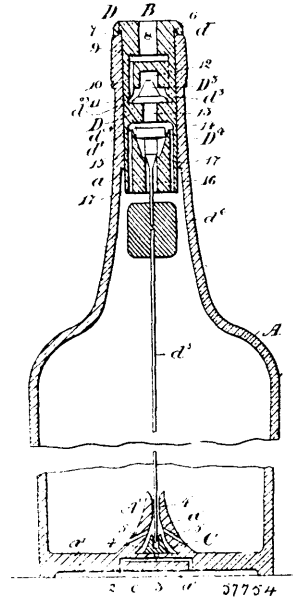


Mary Rebecca Shingler, Leongatha, Victoria, Australia, 9th October, 1897; 6 years. (Filed 29th September, 1897.)

*Claim.*—1st. A furniture spring having in combination a shank tie, shank and head, substantially as and for the fastening purposes set forth. 2nd. A furniture spring having in combination a loop tie and loop substantially as and for the fastening purposes set forth. 3rd. A furniture spring having in combination the parts A to F substantially as and for the fastening purposes set forth.

**No. 57,754. Non-refillable Bottle.**

(*Appareil pour empêcher le remplissage des bouteilles.*)

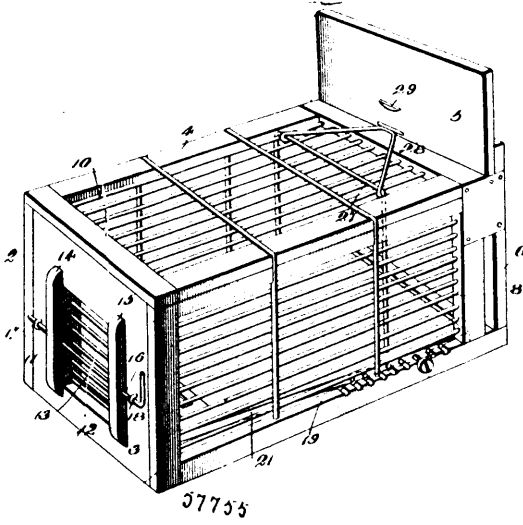


Thomas Hogan, Toronto, Ontario, Canada, 9th October, 1897; 6 years. (Filed 2nd October, 1897.)

*Claim.*—1st. In a non-refillable bottle, the combination with its neck of an internal downwardly facing shoulder, of a non-elastic stopper or plug filling the neck above said shoulder when inserted in said neck, recesses in said plug below said shoulder and tumbler stops adapted to be contained in said recesses and having their lower ends beveled so as to incline their upper parts outwardly when unsupported horizontally and pass their upper ends under said shoulder, substantially as set forth. 2nd. In a non-refillable bottle, the combination with its neck, of a non-elastic stopper or plug filling said neck projecting and overhanging lip on said plug, an annular groove formed by said overhanging lip and an elastic packing ring in said groove adapted to make a tight joint between said overhanging lip and the mouth of the bottle, substantially as set forth. 3rd. In a non-refillable bottle, the combination with the bottom of an internal raised portion, a valve chamber in said raised part having its bottom and top formed into valve seats, an outward central passage from the bottom of said chamber and laterally deviating continuation of said passage having one or more external orifices out of a straight line from said central passage, radiating passages from the upper valve seat communicating with the interior of the bottle and a valve in said chamber having its lower and upper surfaces formed into valve faces adapted to fit the valve seats in said chamber and close the passages therefrom to the exterior and interior, substantially as set forth. 4th. In a non-refillable bottle, the combination with the bottom of a raised portion, a conoidal chamber in the said raised portion having its base and conical truncated top formed into valve seats, a central downward passage from the bottom of said chamber, a laterally deviating continuation of the said passage with one or more external orifices, passages from the conical valve seat to the interior of the bottle, a truncated conoidal valve within said chamber having its base and conical top formed into valve faces, a recess or indentation in the top of said valve, a tubular upward continuation of the valve chamber and a movable pin passing through said tubular upper passage into the recess of the valve and limiting its rise, substantially as set forth. 5th. In a non-refillable bottle, the combination with the bottom of the bottle of a central raised portion, a valve chamber within said raised portion having a lower and upper valve seat, a tubular passage from the top of said valve chamber, a passage from the lower valve seat to the exterior having several changes of direction, passages from the upper valve seat to the interior of the bottle, a valve in said chamber having a lower face and an upper valve face adapted to close the passage to the exterior and interior respectively, a recess in the top of said valve, a pin or wire passing into said recess through the upper tubular passage in the raised portion, a stopper in the neck of the bottle, a valve chamber in said stopper, a valve in said chamber to which said wire is attached and a float a little distance below said stopper, substantially as set forth.

6th. In a non-refillable bottle, the combination with the neck of a non-elastic plug adapted to make a tight joint at the mouth of the bottle, a central passage in the upper end of said plug, an extended shallow chamber at the lower end of said passage, a series of small downward passages at the outer margin of said chamber, a conoidal chamber at the lower end of said marginal passages, a central downward passage from the bottom of said chamber, a valve having the bottom of said chamber for a valve seat and adapted to close the orifice of said last named passage, a laterally extended shallow chamber at the lower end of said passage having its top formed into a valve seat, a valve in said chamber adapted to close the lower orifice of said passage in the top of said chamber and a series of passages from the margin of said chamber downwards, substantially as set forth. 7th. In a non-refillable bottle, the combination with the neck of a downward facing annular shoulder, a non-elastic plug in said neck, stops in said plug adapted to interlock with said shoulder, two chambers in said plug one above the other, a central passage connecting said valve chambers, the faces of the chambers at the ends of the passage formed into valve seats, passages at the margin of the lower chamber to the lower end of the plug, passages at the margin of the upper chamber to another higher chamber, a central passage from said last named upper chamber to the upper end of the plug and valves in said two lower chambers adapted to close the orifice of the connecting passage at one end or the other, substantially as set forth. 8th. In a non-refillable bottle, the combination with the neck of a downwardly facing shoulder, a non-elastic plug in said neck adapted to interlock with said shoulder non-withdrawably, a chamber in said plug having its top formed into a valve seat, a conical recess in the bottom of said chamber, a terminal passage at the bottom of the recess to the lower end of the plug, passages from the outer margin of said chamber to the lower end of said plug, an upward central passage from said chamber, a valve in said chamber having its top formed into a valve seat adapted to close the orifice of said upward passage, a wire secured to the stem of said valve passing through the lower terminal passage, a float on said wire a little distance below the lower end of said plug, a raised portion on the bottom of said bottle having an upper central passage through which said wire passes, a valve chamber in said raised portion having upper and lower valve seats, vent passages in the upper and lower part of said chamber, a valve in said chamber adapted to close said vents, a recess in the top of said valve adapted to be engaged by said wire and controlled thereby, substantially as set forth.

**No. 57,755. Animal Trap. (Pidge.)**

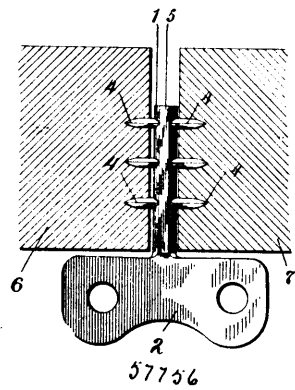


James G. McCoy and Frank J. Devlin, both of Suisun, California, U.S.A., 11th October, 1897; 6 years. (Filed 30th July, 1897.)

*Claim.*—1st. In an animal trap, the combination with a tilted platform, and an adjustable pivot thereof so that the leverage of the platform can be raised, of a trap-door and mechanism connecting the platform with the gate, but which is thrown out of engagement with the latter when the platform is tilted. 2nd. In an animal trap, the combination with racks, of a tilting platform, pivots adjustable connected to a platform and journaled in the racks, a gate or door, and tripping mechanism connecting the platform to the gate so that the latter is released and the trap closed when the platform is tilted. 3rd. In an animal trap, the combination with rack-bars, of a tilting platform having series of screw-holes in alignment with the indented portions of the rack, pivoted screws in the screw-holes and journaled in the racks, a trap-door or gate and tripping mechanism connecting the platform with the gate, so that when the latter is tilted the gate will close the trap. 4th. In an animal trap, a bait-holder comprising a bait-holding pin, a removable plate having an aperture through which the pin pro-

jects, and a device for holding the plate in position on top of the bait. 5th. In an animal trap, a bait-holder comprising a hinged plate provided with an opening, a bait-holding pin projecting through the opening, and catch mechanism for holding the plate in position on top of the bait. 6th. In an animal trap, a bait-holder comprising a pivoted plate provided with a slot and having a catch, a bait-holding pin projecting through the slot, and a second catch adapted to engage with the catch on the plate and hold the latter in position upon the bait. 7th. In an animal trap, the combination with a cage provided with an opening, of a removable door comprising side pieces which fit in the opening and have abutments which rests against the cage, bars connecting said side pieces, eyes projecting from the cage, and a locking rod passing through the eyes and said pieces of the door.

**No. 57,756. Door Fastener. (Attache de porte.)**



Adolph Lemay, assignee of Edward Bertrand, both of Montreal, Quebec, Canada, 11th October, 1897; 6 years. (Filed 19th August, 1897.)

*Claim.*—1st. A fastener of the class described, comprising a shank, and a series of locking lugs carried thereby and adapted to engage the adjacent surfaces between which the shank is inserted, substantially as described. 2nd. A fastener of the class described, comprising a shank, a series of locking lugs carried thereby and adapted to engage the adjacent surfaces between which the shank is inserted, and a head also carried by said shank for manipulating the latter, substantially as described. 3rd. A fastener of the class described, comprising a shank, and a series of locking lugs carried thereby and each provided with a sharp penetrative surface, said surfaces being adapted to engage the adjacent surfaces between which the shank is inserted, substantially as described. 4th. A fastener of the class described, comprising a shank, a series of locking lugs carried thereby and each provided with a sharp penetrative surface, said surfaces being adapted to engage the adjacent surfaces between which the shank is inserted, and a head also carried by the shank for manipulating the latter, substantially as described. 5th. A fastener of the class described, comprising a shank, and a series of locking lugs carried by said shank and each having its sides and outer ends bevelled to form a sharp penetrative surface, said surfaces extending entirely around the lugs, substantially as described. 6th. A fastener of the class described, comprising a shank having its opposite sides flattened, a series of oppositely-projecting locking lugs carried by said shank at one of its ends and arranged in pairs, each of said lugs having its sides and outer end bevelled to form a sharp penetrative surface, said surfaces extending entirely around the lugs, and a head also carried by the shank for manipulating the latter, substantially as and for the purpose described.

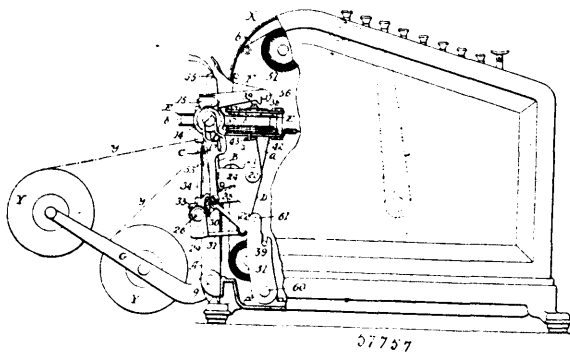
**No. 57,757. Device for Duplicate Printing.**

(Appareil à imprimer en double.)

The American Arithenometer Company, assignee of William Henry Pike, jr., both of St. Louis, Missouri, U.S.A., 11th October, 1897; 6 years. (Filed 7th September, 1897.)

*Claim.*—1st. In a duplicate printing device, the combination with a platen and movable type, of means for feeding two superposed sheets between the platen and type, a ribbon passing between the sheets, devices for feeding the ribbon mechanically, transversely to the direction in which the sheets are fed, a second ribbon interposed between the type and outer sheet, and means for feeding the same, substantially as described. 2nd. The combination with the main frame, type, printing ribbon and its feeding devices, of a printing frame detachably mounted upon the main frame, a platen movable upon the printing frame, means for carrying two superposed strips between the platen and type, a second printing ribbon, and means for feeding the same between the superposed strips, substantially as described. 3rd. The combination with the type and their actuating devices, of a frame carrying superposed strips of paper, a printing

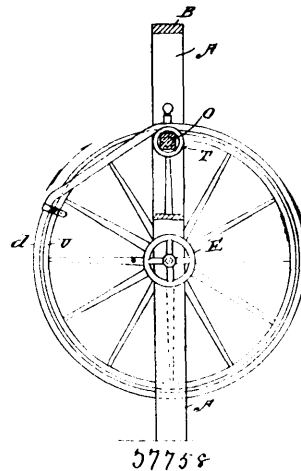
ribbon extending transversely between the strips, means for feeding the ribbon, a platen, and mechanism for moving it into contact with



the strips and for moving it out of contact with said strips to permit the separation thereof while the printing ribbon is being fed, substantially as described. 4th. The combination with type and their actuating devices of a frame carrying superposed strips of paper and feeding mechanism therefor, a printing ribbon extending transversely between the strips, means for feeding the same, devices for maintaining the ribbon taut, a platen, and mechanism for moving it into contact with the strips, and for moving it out of contact with said strips to permit the separation thereof while the printing ribbon is being fed, substantially as described. 5th. The combination with a frame provided with separated bearings, of a movable platen adapted to be carried to and from the bearings, means for feeding superposed sheets of paper intermediate the bearings and platen, a ribbon extending between the superposed sheets, means for feeding the ribbon, movable type, and actuating devices for the type, substantially as described. 6th. The combination of a platen, type, means for feeding superposed sheets between the platen and type, a ribbon passing between the sheets, means for feeding the ribbon intermittently and transversely to the direction in which the sheets are fed, and means for carrying the platen away from the sheets during the feeding of the ribbon, and for holding it in contact with the sheets during the movement of the type, substantially as described. 7th. The combination with a platen and type, of means for feeding a sheet between the type and platen, a ribbon interposed between the type and sheet, two rolls for carrying the ribbon, mechanism for positively rotating one of the rolls in one direction, and simultaneously operating devices for frictionally driving the other roll in the opposite direction, substantially as described. 8th. The combination of a platen, type, and ribbon rolls E, E', of shafts for said rolls, friction connections between one of the rolls and its shaft, and means for turning the other shaft and roll in different directions, substantially as described. 9th. The combination of a platen, type, and ribbon rolls E, E', of shafts for said rolls, friction connections between one of the shafts and its roll, and driving devices for turning one of said shafts in one direction, and devices for turning the other shaft in either direction, substantially as described. 10th. The combination of ribbon spools, shafts supporting the same, a vibrating arm, a pawl having a yielding bearing and ratchet-wheel adapted to be engaged by the pawl in either position to rotate one of the shafts in either direction accordingly as the pawl assumes either position, friction connections between the other spool and its shaft, and means for turning the latter shaft in one direction, substantially as described. 11th. The combination of a platen, type movable to and from the platen, means for feeding superposed sheets between the type and platen, devices for moving the platen to and from the type, a ribbon arranged between the sheets, and mechanism for feeding the ribbon, substantially as described. 12th. The combination of a movable platen, type movable to and from the platen, means for feeding superposed sheets between the type and platen, a printing ribbon extending transversely between the superposed sheets, mechanical means for intermittently feeding the ribbon, and separated presser bars against which the sheets are pressed by the platen during the printing operation, substantially as described. 13th. The combination of a movable platen, type movable to and from the platen, superposed sheets, and means for feeding the same between the platen and type, a printing ribbon, means for feeding the same transversely to the direction in which the sheets are fed, and devices for maintaining the ribbon taut during the feeding operation, substantially as described. 14th. The combination of a platen, type, supports for two superposed strips of paper, and means for feeding the strips between the platen and type, a printing ribbon passing between the strips, and positively and intermittently actuated means for feeding the printing ribbon in a direction transverse to the line in which the strips are fed, substantially as described. 15th. The combination with a platen and type, of means for feeding a sheet between the type and platen, a ribbon interposed between the type and sheet, two rolls for carrying the ribbon, a shaft upon which one of said rolls is loosely mounted,

frictional connections between the shaft and its roll, means for rotating the shaft, and mechanism for positively rotating the other roll, substantially as described. 16th. The combination with the main frame, type, printing ribbon and its feeding devices, of a printing frame pivotally mounted upon the main frame, a platen movable upon the printing frame, means for carrying two superposed strips between the platen and type, a second printing ribbon extending transversely between the superposed strips, and means for feeding the same, substantially as described. 17th. The combination of a ribbon, feeding devices therefor, means for reversing the action of the feeding devices, and mechanism for automatically shifting the reversing means under unusual tension upon the ribbon, substantially as described. 15th. The combination with a platen and type, of means for feeding a sheet between the same, a printing ribbon interposed between the type and sheet, and automatically actuated devices for causing the ribbon to be fed first in one direction and then in the opposite direction, substantially as described. 19th. The combination with a frame carrying type and their operating mechanism, of a second frame adapted to swing into and out of printing position, means for locking it in the latter position, and a platen and ribbon feeding devices carried upon said second frame, substantially as described. 20th. The combination with the main frame and type, of a printing frame mounted upon the main frame to be moved with respect thereto, a movable platen mounted upon the printing frame, mechanism for moving the type to and from the platen, and mechanism for moving the platen to and from the type, substantially as described.

**No. 57,758. Device for Applying Rubber Tires to Vehicle Wheels.** (*Appareil pour attacher les bandages de caoutchouc aux roues.*)



The Victor Rubber Co., Springfield, Ohio, U.S.A., 11th October, 1897; 6 years. (Filed 27th September, 1897.)

*Claim.*—1st. In an apparatus for applying rubber tires to vehicle wheels, the combination with a frame or fixed structure composed of uprights and a cross-piece, adjustable wheel supports mounted in uprights, and a wheel guide mounted in one of the uprights, ways on the other upright, a slidable block in the ways, a screw-threaded shaft to adjust the block and a pulley carried by the block along-side of the wheel rim and adjustable from a point beneath the wheel rim thence outward and adapted to draw outward on the rubber tire and to shift it laterally onto the vehicle wheel. 2nd. In an apparatus for applying rubber tires to vehicle wheels, the combination with a frame or fixed structure consisting of uprights and a cross-piece, adjustable wheel supports composed of threaded rods mounted in the uprights, an adjustable wheel brace composed of threaded rods mounted in one of the uprights and having an inclined anti-friction roller, ways mounted on the other upright, a slidable block in said ways, a pulley secured by the block and inclined to the vehicle wheel, and a threaded shaft to adjust the block. 3rd. In an apparatus for applying rubber tires to vehicle wheels, the combination with a frame or fixed structure, of wheel supports, a tire guiding mechanism carrying a pulley inclined to the vehicle wheel when mounted on said supports, said mechanism and supports being relatively adjustable to bring said pulleys substantially level with the flange of the channel iron of the said wheel.

**No. 57,759. Evacuating Device.** (*Appareil à évacuer.*)

Walter Vose Lawton, Providence, Rhode Island, U.S.A., 11th October, 1897; 6 years. (Filed 15th September, 1897.)

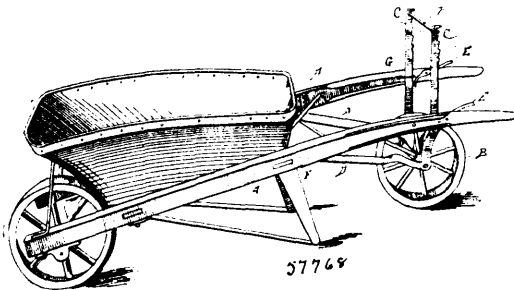
*Claim.*—1. A device for the purpose described, comprising a holder, a body portion having means for detachably connecting it to the said holder, said body consisting of a drum shaped receptacle, having apertured ends, a central passage opening into the holder





*Claim.*—1st. The combination with the upper and lower segments one of which is constructed with a channel, of a curved ball housing inserted in said channelled segment and provided with a ball socket, means for securing said curved ball housing in a fixed position in the channel, and a ball seated in the ball socket, substantially as and for the purposes specified. 2nd. In a fifth wheel, the combination with the upper and lower segments, of an antifriction ball housing or bearing interposed between said segments and removably affixed to one of them, and antifriction balls seated in the sockets in said housings or bearings, and having a rolling contact with the other segment, substantially as described. 3rd. In fifth wheel, the combination with the channelled segment 11, and the flanged segment 4, of the antifriction ball housings or bearings removably fixed in the opposite ends of said channelled segment and provided with semi-circular sockets, and antifriction balls 15 arranged in said sockets and having a rolling contact with the segment 4, substantially as described. 4th. In a fifth wheel, the combination with the channelled segment 11, and the flanged segment 4, of the antifriction ball housings or bearings arranged in opposite ends of the channelled segment and provided with semi-circular sockets, covers for said housings or bearings having circular apertures through which the antifriction balls protrude, and means for removably affixing said housings or bearings to said channelled segment, substantially as described. 5th. In a fifth wheel, the combination with the channelled segment 11, and the flanged segment 4, of antifriction ball housings or bearings 13, arranged in the opposite ends of the segment 11, and provided with semi-circular sockets 14 and apertures 16, antifriction balls 15, seated in said sockets 14, covers 17 arranged on said housings or bearings and having circular apertures through which the antifriction balls protrude to contact with the segment 4, and provided on their under sides with ribs which abut with the ends of the housings, and bolts removably securing said housings or bearings and their covers to the segment 11, substantially as described. 6th. In a fifth wheel, the combination with a body having bolsters 2 and 3, of an upper flanged segment and a lower channelled segment the sides of which are overlapped by the flanges of the upper segment, antifriction bearings in said channelled segment, a plate 6 fastened to the rear bolster, a plate 27 connected to the lower segment and having a block 7, upon which the plate 6 rests, a plate 24 secured to the upper segment, and a king bolt passing through the plate 6, the block 7, the plate 24; and the forward axle, a spring carried thereby, and means for connecting the upper segment and the plate 24 to said spring, substantially as described. 7th. In a fifth wheel, the combination with a spring, of a lower segment having a channel therein, means for securing said segment to the spring, an upper segment fitting over the lower segment, said upper segment, having flanges that inclose the edges of the lower segment, and antifriction bearings in said lower segment, substantially as described. 8th. In a fifth wheel, the combination with a half elliptic spring, of a lower grooved segment, means for securing said segment to the spring, an upper segment fitting over the lower segment and having flanges that inclose the sides of said lower segment, and antifriction bearings between said segments, substantially as described.

**No. 57,768. Wheelbarrow, etc. (Brouette, etc.)**



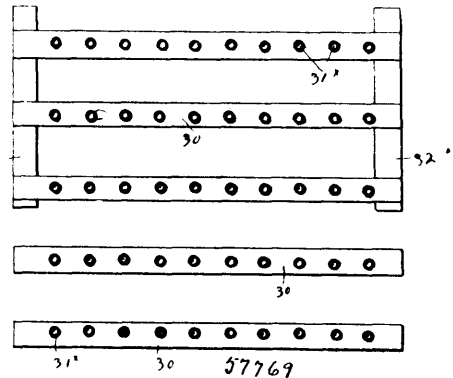
Remus A. Kneeland, Benton Harbor, Michigan, U.S.A., 12th October, 1897; 6 years. (Filed 25th September, 1897.)

*Claim.*—1st. The combination with a wheelbarrow, an auxiliary wheel B, a frame composed of side pieces C, secured to the axle of said wheel, and having notches at their upper ends, cross-bars H, between the side pieces C, above the said wheel B, arms D, D, pivoted to the axle at each side of the wheel extending upwardly and forwardly and pivotally connected to the handles of the wheelbarrow, loop guides G, G, on the handles of the wheelbarrow for receiving the side pieces C, C, and engaging the ratchet notches thereon, levers E, E, pivoted to the handles of the wheelbarrow positioned to act upon the side pieces C, C, and throw them out of engagement with the guides G, all co-acting together, substantially as described and for the purpose specified. 2nd. The combination with a wheelbarrow, of an auxiliary wheel B, a frame composed of side pieces C, secured to the axle of said wheel, and having notches at their upper ends, arms D, D, pivoted to the axle at each side of the wheel extending upwardly and forwardly and pivotally connected to the handles of the wheelbarrow, loop guides G, G, on the

handles of the wheelbarrow for receiving the side pieces C, C, and engaging the ratchet notches thereon, levers E, E, pivoted to the handles of the wheelbarrow positioned to act upon the side pieces C, C, and throw them out of engagement with the guides G, all co-acting together, substantially as described and for the purpose specified. 3rd. The combination in a wheelbarrow of an auxiliary rear wheel, bars D, D, pivoted to said wheelbarrow and extending downwardly and rearwardly and connecting to the said auxiliary wheel and extending upwardly therefrom, and suitable means of adjustability connecting the same to the handle of the wheelbarrow to adjust the same to any height desired, as specified. 4th. The combination in a wheelbarrow of an auxiliary wheel, a frame for supporting said rear wheel, and suitable means for adjusting the height of said frame, co-acting as specified. 5th. In a wheelbarrow, or similar vehicle, the combination with the wheelbarrow of a wheel, a suitable carrying frame for said wheel, and convenient means for adjusting the height of the same, for the purpose specified. 6th. The combination of a wheelbarrow of an auxiliary wheel downwardly and rearwardly extending bars pivotally connecting said wheel and wheelbarrow, upwardly extending bars from said wheel having ratchet notches to engage the loop notches on the handles, loop guides on the handles of said wheelbarrow, and levers E, pivoted to the handles to throw the ratchet bars out of engagement, for the purpose specified.

**No. 57,769. Bottle Filling Device.**

(Appareil à emplir les bouteilles.)



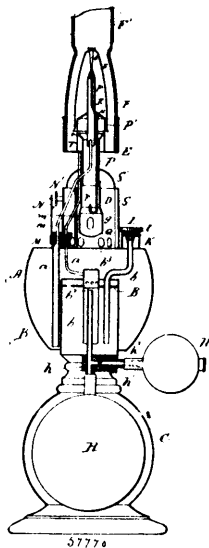
Henry Levers, Quebec, Canada, 12th October, 1897; 6 years. (Filed 20th May, 1897.)

*Claim.*—1st. A bottle filling device comprising a tank, a series of valve-controlled outlets from said tank, a support for the bottles to be filled, and means for arranging and localizing said bottles relatively to said outlets, for the purpose set forth. 2nd. A bottle filling device comprising a tank, a series of valve-controlled outlets from said tank, a carrier for the bottles to be filled, and means consisting of one or more funnel carriers adapted to arrange and localize said bottles relatively to said outlets, for the purpose set forth. 3rd. A bottle filling device comprising a tank, a series of valve-controlled outlets from said tank, said outlets being disposed in a series of rows, and means for operating the valves of each row of outlets independently, for the purpose set forth. 4th. A bottle filling device comprising a tank, a series of valve-controlled outlets from said tank, said outlets being disposed in a series of rows, and means for operating the valves of the outlets collectively, for the purpose set forth. 5th. A bottle filling device comprising a tank, a series of valve-controlled outlets from said tank, said outlets being disposed in a series of rows, and means for operating the valves of the outlets collectively or independently, for the purpose set forth. 6th. A bottle filling device comprising a tank, a series of valve-controlled outlets from said tank, a carrier for the bottles to be filled consisting of a tray having a series of recesses in the upper face thereof, and a second series of recesses of smaller diameter than and concentric of said first mentioned recesses, and means for arranging and localizing said bottles relatively to said outlets, for the purpose set forth. 7th. A bottle filling device comprising a tank, a series of valve-controlled outlets from said tank, a carrier for the bottles to be filled consisting of a tray having a series of recesses in the upper face thereof, and a second series of recesses of smaller diameter than and concentric of said first mentioned recesses, and means consisting of one or more funnel carriers adapted to arrange and localize said bottles relatively to said outlets, for the purpose set forth. 8th. A bottle filling device comprising a tank having a series of openings in the bottom thereof arranged in one or more rows, a series of vertically extending stop-cocks communicating at their upper ends with said openings, one or more sliding rods extending parallel to said row or rows, and an operative connection between the valves of each row of stop-cocks and the rod adjacent thereto, and means for operating said rod or rods, for the purpose set forth. 9th. A bottle filling device comprising a tank having a series of openings in the



bottom thereof arranged in one or more rows, a series of vertically extending stop-cocks communicating at their upper ends with said openings, the valve of each stop-cock extending horizontally therethrough, and having a passage extending at an obtuse angle to the channel of said stop-cock, a sliding rod extending parallel to said row or rows, and a series of vertical levers connected at their lower ends to the valves of each row of stop-cocks, and at their upper ends to the rod adjacent thereto, and means for operating said rod or rods, for the purpose set forth. 10th. In a bottle filling device comprising a tank having a series of openings in the bottom thereof arranged in one or more rows, a series of vertically extending stop-cocks communicating at their upper ends with said openings, the valve of each stop-cock extending horizontally through a sliding rod extending parallel to said row or rows, and a series of vertical levers connected at their lower ends to the valves of each row of stop-cocks, and at their upper ends to the rod adjacent thereto, and means for operating said rod or rods, for the purpose set forth. 11th. In a bottle filling machine, a stop-cock consisting of a valve and valve-casing, the casing having a channel extending longitudinally therethrough, the valve extending at right angles to said channel and having a passage at an obtuse angle to said channel, for the purpose set forth. 12th. A bottle filling device comprising a tank having a series of openings in the bottom thereof arranged in one or more rows, a series of vertically extending stop-cocks communicating at their upper ends with said openings, the valve of each stop-cock extending horizontally therethrough, a sliding rod extending parallel to said row or rows, and a series of vertical levers connected at their lower ends to the valves of each row of stop-cocks, and at their upper ends to the rod adjacent thereto, and means for operating said rod or rods, a carrier for the bottles to be filled, and a series of carriers each having a series of funnels projecting therethrough adapted to arrange and localize said bottles relatively to the stop-cocks, for the purpose set forth. 13th. A bottle filling device comprising a tank, a series of valve-controlled outlets from said tank, a carrier for the bottles to be filled, and means consisting of one or more funnel carriers adapted to arrange and localize said bottles relatively to said outlets, the funnels of said funnel carrier or carriers having their diminished ends bevelled, for the purpose set forth. 14th. A bottle filling device comprising a tank having a series of openings in the bottom thereof arranged in one or more rows, a series of vertically extending stop-cocks communicating at their upper ends with said openings, the valve of each stop-cock extending horizontally therethrough, a sliding rod extending parallel to said row or rows, and a series of vertical levers connected at their lower ends to the valves of each row of stop-cocks, and at their upper ends to the rod adjacent thereto, and a series of levers fulcrumed to the tank and operatively connected to said rod or rods, a carrier for the bottles to be filled, and a series of carriers each having a series of funnels projecting therethrough and adapted to arrange and localize said bottles relatively to the stop-cocks, for the purpose set forth.

**No. 57,770. Incandescent Lamp for the Combustion of Coal Oil and the like. (Lampe incandescente pour la combustion d'huile de pétrole, etc.)**



Maximilian Wendorf, Albert Meyenberg and Siegmund Henlein, all of Frankfort-on-the-Maine, Germany, 13th October, 1897; 6 years. (Filed 18th May, 1896.)

*Claim.*—1st. In an incandescent lamp, an evaporator placed inside the stocking and adapted to hold the stocking, substantially as de-

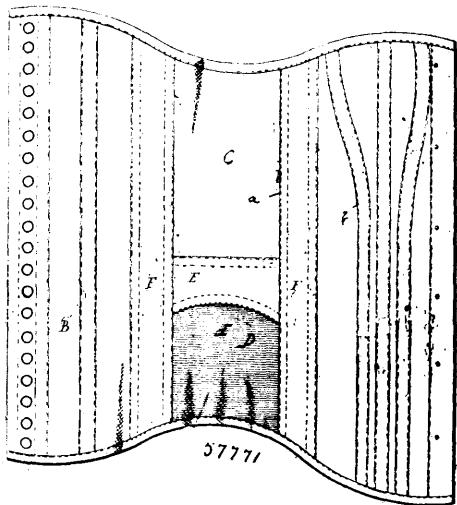
scribed. 2nd. In an incandescent lamp, the combination with an evaporator placed inside the stocking, of a feed, pipe entering at the bottom of the evaporator, of means to supply oil to this pipe, and of a discharge pipe leading from the top of the evaporator downward and having an upward bent nozzle, substantially as described. 3rd. In an incandescent lamp, the combination with a burner-head, of an evaporator placed in the centre of it, of a vapour pipe communicating with the evaporator and having its discharge opening under the burner-head, and of a conduit for igniting vapours having its discharge opening under the burner-head also, substantially as described. 4th. In an incandescent lamp, the combination with two basins for a burning and an igniting fluid, of pipes leading from the basins to the burner-head, and means to shut off or open both pipes or either of them, substantially as described. 5th. In an incandescent lamp, the combination of two basins for a burning and an igniting fluid, of pipes leading from them to the burner-head and of means to open the igniting pipe, open the lighting pipe and close the igniting pipe consecutively by one handle, substantially as described. 6th. In an incandescent lamp, the combination with two basins for the burning and the igniting fluid, of means to set both basins under atmospheric pressure, and of means to store up the compressed air and delivering it, substantially as described. 7th. In an incandescent lamp, an igniting device consisting of a basin for an easily evaporating fluid as benzine or alcohol, means to blow air through the fluid and a pipe leading from the basin to the burner-head, substantially as described. 8th. In an incandescent lamp, an igniting device consisting of a basin containing cotton or the like and an easily evaporable fluid, an air pipe opening at the bottom of the basin and a discharge pipe at the cover of the basin, substantially as described. 9th. In an incandescent lamp, the combination with a hollow burner of two basins for a burning and an igniting fluid, of means to set both basins under pressure, of pipes extending from the said basins and communicating with the inner space of the burner, and of means to open or close the said pipes together or alternatively, substantially as described. 10th. In an incandescent lamp, the combination with an oil tank, of pipes extending from the tanks to the burner, of a rubber ball, a pipe extending from the rubber ball and communicating with the said tanks, means to fill the said ball with pressed air, and means to open or close the said tank pipes, substantially as described. 11th. A burner for an incandescent lamp consisting of an open pipe ending in an enlarged burner-head, an evaporator placed at the top of the burner, a pipe leading to the evaporator, a pipe leading from the top of the evaporator downward and ending in an upward turned nozzle, of a wire net, of a pipe for the supply of the igniting agent, and means to discharge the igniting agent at the periphery of the said open pipe under the said wire net, substantially as described. 12th. In a burner for an incandescent lamp, a cylinder having a conical underside substantially parallel to the stocking, substantially as described. 13th. In an incandescent lamp, the combination with an oil basin, of a benzine basin, a hollow foot, a rubber ball placed inside the hollow foot, means to inflate the ball, communicating ways between the ball and the said basins, a double way cock at the top of the oil basin, a burner supported by the said basin, pipes connecting the cock with the basins and the burner and a scale for indicating the position of the cock, substantially as described. 14th. In an incandescent lamp, the combination with an oil basin and a benzine basin, of a mouth-piece in the oil basin, a filling pipe of the benzine basin extending into the said mouth-piece and means to close the mouth-piece air-tight, substantially as described. 15th. In an incandescent lamp, the combination with an oil basin, of a pipe opening near the bottom of it, a filtering filling of the pipe, means to close the pipe at its upper end, and means to set the oil tank under pressure, substantially as described. 16th. In an incandescent lamp, the combination with an oil tank, of a benzine tank put in it, a cotton filling in the benzine tank, a false perforated bottom under the cover of the latter tank, a pipe extending from the top of the tank to the burner, a pipe communicating with the press air reservoir and extending upwards in the benzine tank, a larger pipe closed at the top and open at the bottom and surrounding the said air-pipe, and a pipe extending from the benzine basin into the oil basin and opening near the top of it, substantially as described. 17th. In an incandescent oil lamp, a reservoir ball of caoutchouc adapted to press air into the oil container, substantially as described. 18th. In an incandescent lamp, the arrangement of the benzoline container and the feeding ball, and the reservoir ball in the hollow base of the lamp, substantially as described. 19th. In an incandescent lamp, a catch lever adapted to be moved by the expanding reservoir ball, and prevent the movement of the presser lever of the feeding ball, substantially as described. 20th. An incandescent lamp, consisting of an upper part containing the burner and oil container and a base containing a reservoir ball, a feeding ball and the benzoline basins, pipes leading upward into the centre of a screw-threaded plug and into a circular groove on the top of the plug, and pipes opening in the bottom of the oil container, substantially as described.

**No. 57,771. Corset. (Corset.)**

Franklin Kellogg Hickok, New Haven, Connecticut, U.S.A., 13th October, 1897; 6 years. (Filed 30th September, 1897.)

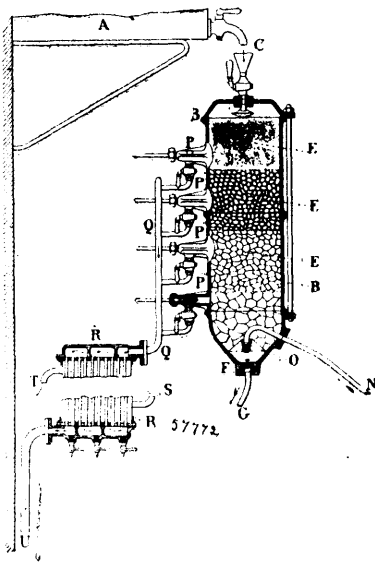
*Claim.*—The herein described corset, comprising a front and back section, and a hip section composed of a central portion shorter than the front and back sections, and curved at its lower end, an

elastic section secured to the lower edge of said central section and connected thereto by a reinforce overlapping said two sections,



said combined hip section connected to the front and rear sections by double stay strips, substantially as described.

**No. 57,772. Method of Distillation.**  
(Méthode de distillation.)

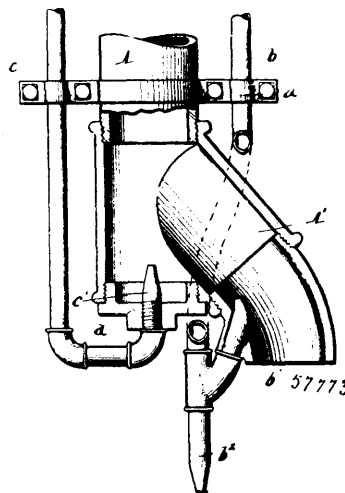


La Compagnie Internationale des Procédés Adolphe Seigle, assignee of Adolphe Seigle, both of Paris, France, 13th October, 1897; 6 years. (Filed 17th March, 1896.)

*Claim.*—1st. Apparatus for transforming the heavy hydrocarbons such as heavy oils, coal tars, schist oils, petroleum, and the like, comprising a heater, elements adapted to vaporize by circulation, and elements for treating by means of heat the vapours generated by the first-mentioned elements, an intermediate bath of lead or other metal, a feed apparatus and a condenser, substantially as shown and described. 2nd. The classifying condenser or exchanger of temperature, comprising the receptacle B containing obstructing inert material, and having an inlet for the heavy hydrocarbons, and valve-controlled outlets and the condensing receptacle R for classifying and separately collecting the vapours of different volatility, as well as progressively heating the hydrocarbon to be transformed before its introduction into the vaporizing elements, substantially as shown and described. 3rd. In apparatus for transforming the heavy hydrocarbons, such as heavy oils, coal tars, schist oils, petroleum, and the like, the combination of a heater, elements adapted to vaporize by circulation, and elements for treating by means of heat the vapours generated by the first-mentioned elements, an intermediate bath of lead or other metal, a feed apparatus and a classifying condenser or exchanger of temperature comprising

the receptacle B containing obstructing inert material, and having an inlet for the heavy hydrocarbons, and valve-controlled outlets and the condensing receptacle R, substantially as shown and described. 4th. In apparatus for transforming the heavy hydrocarbons, such as heavy oils, coal tars, schist oils, petroleum, and the like, means for regulating the flame of the gasifier or sprayer of combustible liquid, consisting of a pyrometer *a* plunged in the lead bath of the apparatus, and lever connections between said pyrometer and the delivery controller of the gasifier, substantially as shown and described.

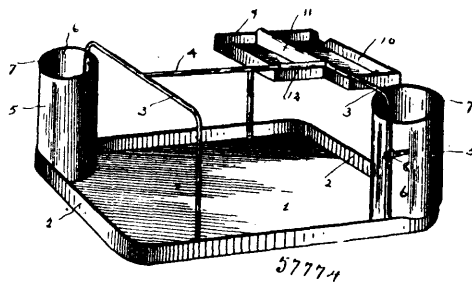
**No. 57,773. Dredging Apparatus.** (Appareil à draguer.)



John Clinton Whisler and James Pennington Cole, both of Chicago, Illinois, U.S.A., 13th October, 1897; 6 years. (Filed 4th October, 1897.)

*Claim.*—1st. In dredging apparatus, the combination with the suspended gangue tube projecting into the submerged deposits, of the air-pipe or passage having a jet-like discharge into said gangue tube near the lower end thereof, and the separate water-pipe or passage furnished with a leader jet beneath the gangue tube, substantially as described. 2nd. In dredging apparatus, the combination with the suspended gangue tube projecting into the submerged deposits, of the air-pipe or passage having a jet-like discharge into said gangue tube near the lower end thereof, and the separate water-pipe or passage furnished with a leader jet beneath the gangue tube, and having a supplemental jet discharging into the open mouth of the main gangue tube, substantially as described.

**No. 57,774. Dish Trap.** (Plateau.)

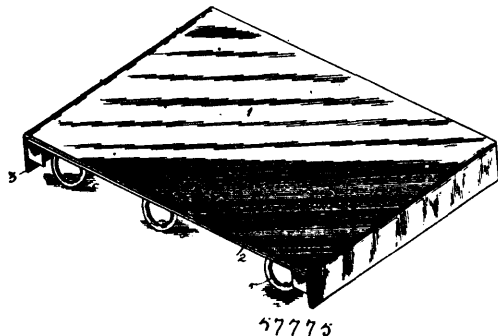


Olof Sutherland, Rutland, North Dakota, U.S.A., 13th October, 1897; 6 years. (Filed 4th October, 1897.)

*Claim.*—1st. A tray for the purpose described, comprising a main body portion having a surrounding rim and receptacles for cups, etc., arranged at suitable points on the tray and extending upward therefrom, said receptacles being substantially cylindrical in form, and each provided at one side with a door which may be opened for the introduction or removal of the articles adapted to be placed therein, substantially as described. 2nd. A tray for the purpose described, comprising a body portion having a surrounding rim, U-shaped frames extending above said tray and united thereto, and also connected as described, and receptacles for knives, forks, spoons, etc., said receptacles being in the form of rectangular trays and provided at their edges with lips which extend over and embrace the top bars of said frames, whereby the said receptacles are superposed above the tray proper, substantially as and for the purpose described. 3rd. The herein-described tray, comprising the main body having a surrounding rim, U-shaped frames extending above

said tray, and connected thereto at spaced points, a rigid connection between said frames, receptacles for cups, saucers, etc., arranged at diagonally opposite corners of the tray and provided with laterally-opening doors and independent receptacles for smaller articles in the shape of trays, the latter being connected together and supported upon the upper portion of the superposed frame, substantially as described.

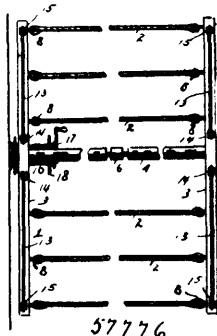
**No. 57,775. Oven. (Fourneau.)**



Martha M. Williams, La Plata, Missouri, U.S.A., 13th October 1897; 6 years. (Filed 5th October, 1897.)

*Claim.*—A shelf of the kind specified, consisting of a member 1 having downwardly-projecting side flanges and guide-lugs, and a member 2 situated between said flanges and said guide-lugs and provided with legs, substantially as described.

**No. 57,776. Clothes Drier. (Séchoir à linge.)**



John E. Williams, Marquette, Michigan, U.S.A., 13th October 1897; 6 years. (Filed 5th October, 1897.)

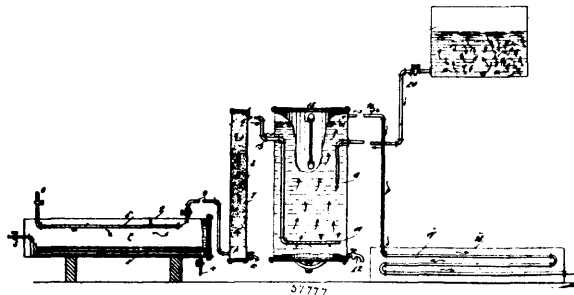
*Claim.*—1st. In a clothes drier, a drier-frame composed of end bars provided with mortises, clothes-lines connecting the end bars, an adjustable connecting bar interposed between the end bars, abutting against the same and adapted to force the said end bars outward away from each other to tighten the clothes-lines, said connecting bar consisting of two sections provided at their inner ends with interiorly threaded sockets and having tenons at their outer ends fitting in the mortises of the end bars, rigidly securing the connecting bar to the end bars and holding the connecting bar against any lateral movement, and an adjusting screw having oppositely threaded stems fitting in the sockets of the sections and adapted to force the latter outward, substantially as described. 2nd. A clothes drier comprising a drier-frame composed of end bars, a connecting bar consisting of two sections connected at their inner ends by an adjusting-screw and having their outer ends detachably interlocked with the end bars, clothes-lines connecting the end bars, hangers designed to be arranged at the ends of a room and to depend from the ceiling thereof, centrally arranged end pulleys designed to be suspended from a ceiling-pulleys mounted on the end bars of the drier-frame and arranged near the centres and terminals thereof, hoisting-ropes passing through the centrally-arranged end pulleys and provided with end branches passing through the pulleys of the driver-frame and secured to the hangers, a pair of pulleys located at one side of the room and receiving the hoisting-ropes, and a windlass connected with the hoisting-ropes, substantially as and for the purpose described.

**No. 57,777. Process and Apparatus for Deodorizing Oils.**

(Procédé et appareil pour désinfecter l'huile.)

James Raynor Whiting, Stamford, Connecticut, and William Appleton Lawrence, Waterville, New York, both in the U.S.A., 13th October, 1897; 6 years. (Filed 3rd May, 1897.)

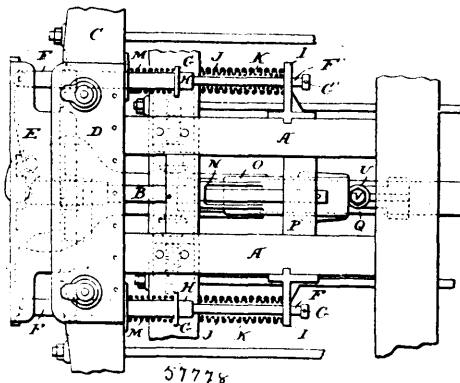
*Claim.*—1st. A process for deodorizing oils, consisting in first reducing the oil to a vapour, then passing said vapour through charcoal,



then through lime water, and then condensing said vapour, substantially as specified. 2nd. An apparatus for deodorizing the lighter products of coal or petroleum, comprising a heating cylinder in which the material under treatment is to be vaporized, a container for charcoal having communication with said cylinder, a lime water cylinder communicating with the container, and a condenser communicating with said lime water cylinder, substantially as specified. 3rd. An apparatus for deodorizing the lighter products of coal or petroleum, comprising a heating cylinder, a perforated inlet pipe in said cylinder, a heating coil in said cylinder, a container for charcoal, a perforated transverse partition in said container, a pipe connection between the upper portion of the cylinder and the lower portion of the container, a lime water cylinder, a pipe leading from the upper part of the charcoal container through the wall of the lime water cylinder and nearly to the bottom thereof, the lower portion of said pipe being provided with perforations, a condenser communicating with the upper portion of the lime water cylinder, and a supply tank having a pipe communication with the interior of the lime water cylinder, substantially as specified. 4th. A process for deodorizing the light products of oil, consisting in first passing the same in the form of a vapour through charcoal and subsequently subjecting it to the action of lime, substantially as described.

**No. 57,778. Buffer Platform for Railroad Cars.**

(Plate-forme pour tampons de choc de chars.)



The Trogan Car Coupler Company, Troy, assignee of Thomas L. McKean and Alfred H. Renshaw, both of New York, all in the State of New York, U.S.A., 13th October, 1897; 6 years. (Filed 4th October, 1897.)

*Claim.*—1st. A buffer platform supported by side stems F, and bearing against the central buffer stem, substantially as described. 2nd. A buffer platform having side stems F, and side springs and bearings arranged to be brought successively against said springs, substantially as described. 3rd. The combination with the buffer platform, of a central buffer stem and springs, and shoulders to make successive contact with said springs, and a coupler and draw-bar, and bearing for said springs on the draw-bar, substantially as described. 4th. In combination with the buffer platform E, and side stems F, provided with fixed collars G, and transverse beam C, the righting springs M, interposed between and bearing against the collars G, and the rear face of the beam C, whereby the stems F are restored to normal position, substantially as and for the purpose described.

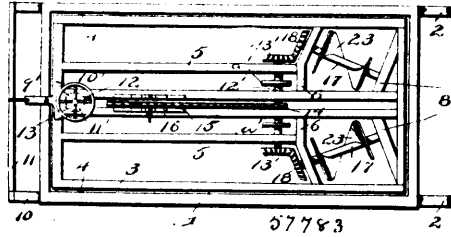
**No. 57,779. Vertically Adjustable Seat. (Siège.)**

John Ryan Burke, Boston, Mass., U.S.A., 13th October, 1897; 6 years. (Filed 6th October, 1897.)

*Claim.*—1st. A supporting member, a seat, and a seat-carrying member, a series of engaging surfaces on one and one or more lock-



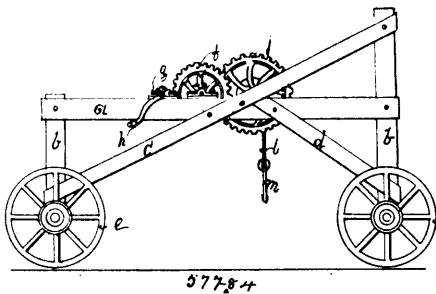
**No. 57,783. Sled Propeller.** (*Propulseur de traineau.*)



Howard H. Homer, Franklin, Maine, U.S.A., 13th October, 1897; 6 years. (Filed 4th October, 1897.)

*Claim.*—1st. A sled, with means for propelling the same, said means comprising the obliquely-arranged screws. 2nd. A sled, with means for propelling the same, said means comprising the pair of obliquely-arranged screws. 3rd. A sled, with means for propelling the same, said means comprising the obliquely-arranged screws, said screws extending in opposite directions to each other. 4th. A sled, with means for propelling the same, said means comprising the pair of obliquely-arranged screws, said screws being driven from a common shaft. 5th. A sled, with means for propelling the same, said means comprising the screws carrying bevelled gears, the transverse shaft carrying gear meshing therewith, the sprocket-wheel arranged centrally of said transverse shaft, and the chain and sprocket for rotating said transverse shaft, substantially as described. 6th. A sled, with means for propelling the same, said means comprising the obliquely-arranged screws, and the brake mechanism for locking said screws against rotation. 7th. A sled, with means for propelling the same, said means including the shaft 12', and the screws carrying the gears, the frictional discs also carried by said shaft, the brake-shoes, the pivoted plate under spring-tension carrying said shoes, and the means for depressing said plate to bring said shoes into contact with said disc to lock said screws.

**No. 57,784. Stone Extractor.** (*Arrache-pierre.*)



Alexis Préfontaine, St. Marc, Verchères, Chambly, Québec, Canada, 13 octobre 1897; 6 ans. (Déposé le 4 octobre 1897.)

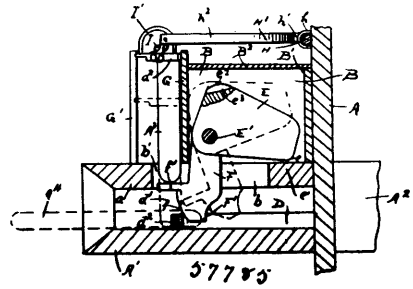
*Résumé.*—1°. Dans un arrache-pierre, la combinaison des solives *a*, avec les poteaux *b*, les liens *c*, et les travers *p*, tel que ci-dessus d'écrit et pour les fins indiquées. 2°. Dans un arrache pierre, la combinaison des manivelles *h*, avec le pignon *g*, la roue d'engrenage *f*, le pignon *i*, la roue d'engrenage *j*, le tambour *k*, le câble *l* et le grappin *m*, tel que ci-dessus d'écrit et pour les fins indiquées.

**No. 57,785. Car-Coupler.** (*Attelage de chars.*)

Theophilus P. Weidler, Glenola, Pennsylvania, U.S.A., 13th October, 1897; 6 years. (Filed 4th October, 1897.)

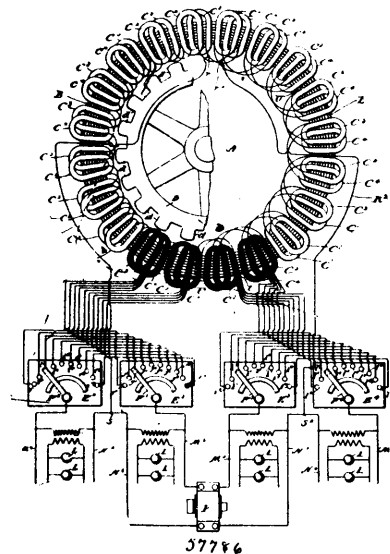
*Claim.*—1st. The combination, in a draw-head, the chamber on the draw-head having a slot in the bottom thereof, a weighted lever arm having its front end fulcrumed in said chamber, a bearing back of said slot, adapted to limit the downward movement of said lever arm and a tongue on the front of said arm, and projecting down into the draw-head, and constructed to support the coupling pin in an elevated position, the tongue projecting across the line of travel of the coupling link for the purpose described. 2nd. The combination, in a draw-head, the chamber on the draw-head having a slot in the bottom thereof, a weighted lever arm having its front end fulcrumed in said chamber, a bearing back of said slot, adapted to limit the downward movement of said lever-arm, a tongue on the front of said lever arm and projecting down into the draw-head, a lip on the tongue, adapted to project beneath the coupling pin opening, the portion of the tongue below said lip projecting across the line of travel of the coupling link, for the purpose specified. 3rd. The combination in a draw-head, of a chamber on the draw-head having a slot in the bottom thereof, a weighted lever-arm pivoted

in said chamber, ribs on the bottom of the draw-head and forming a groove ranging with the slot in the bottom of the chamber, said



ribs lying in the path of travel of the coupling-pin, and a tongue on the lever-arm extending down through said slot into said groove, said tongue being constructed to support the coupling-pin in an elevated position, for the purpose specified. 4th. The combination in the draw-head, of a chamber on the draw-head, of a chamber on the draw-head having a slot in the bottom thereof, a weighted lever-arm having its front end fulcrumed in said chamber, a bearing back of said slot, adapted to limit the downward movement of said lever-arm, ribs on the bottom of the draw-head and forming a groove ranging with the slot in the bottom of the chamber, said ribs lying in the path of travel of the coupling-link, and a tongue on the front of the lever-arm, and extending down through said slot into said groove, said tongue being constructed to support the coupling-pin in an elevated position, for the purpose specified. 5th. The combination in a draw-head, of a chamber on the draw-head having a slot in the bottom thereof, a weighted lever-arm having its front end fulcrumed in said chamber, a bearing back of said slot, adapted to limit the downward movement of said lever-arm, ribs on the bottom of the draw-head and forming a groove ranging with the slot in the bottom of the chamber, said ribs lying in the path of travel of the coupling-link and having their front ends bevelled, a tongue on the front of the lever-arm, and extending down through said slot into said groove, a lip on the tongue adapted to project beneath the coupling-pin opening, the front edge of the portion of the tongue below the lip being inclined backward from said lip to the lower end thereof, substantially as and for the purpose specified. 6th. The combination, in a draw-head, of a post on one side of the coupling-pin opening and having a vertical groove therein, a post on the opposite side of said opening, a coupling-pin having a lip constructed to engage the groove in the first post, and a groove adapted to embrace the second post, a rock-shaft, outwardly projecting arms on the rock-shaft, and a slack chain attached to said arm and passing through a ring on the coupling-pin, substantially as and for the purpose specified.

**No. 57,786. System of Electrical Distribution.** (*Système de distribution électrique.*)

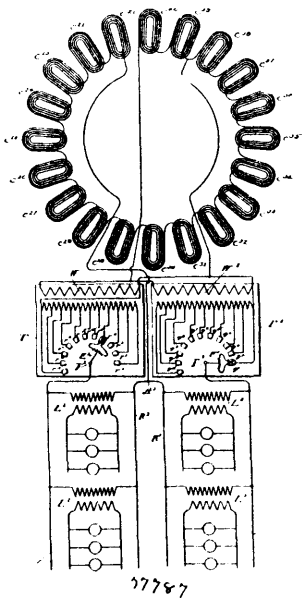


John F. Kelly and Cummings C. Chesney, both of Pittsfield, Massachusetts, U.S.A., 14th October, 1897; 6 years. (Filed 26th September, 1896.)

*Claim.*—1st. In a system of electrical distribution, an alternating current generator having a set of generating coils consisting of two groups of generating coils, said groups having their electro-motive forces in opposition, said generating coils consisting of principal generating coils and regulating generating coils, the regulating generating coils being connected to circuit controllers more than one in number, and each circuit controller connected to one of as many mains or feeders, and controlling the relation of the regulating generating coils to the principal generating coils and the mains or feeders, substantially as described. 2nd. In a system of electrical distribution, a multiphase alternating current generator having a set of generating coils for each phase, all energized from the same source of magnetism, each set consisting of principal generating coils and regulating generating coils, the regulating generating coils being connected to one or more circuit controllers, and each circuit controller connected to one of as many mains or feeders, and controlling the relation of the regulating generating coils to the principal generating coils and the mains or feeders, substantially as described. 3rd. In a system of electrical distribution, an alternating current generator having two sets of generating coils each being of different phase, consisting of two groups of generating coils, said groups having their electro-motive forces in opposition, said generating coils in each set consisting of principal generating coils and regulating generating coils, the regulating generating coils being connected to one or more circuit controllers, each circuit controller being connected to one of as many mains or feeders and controlling the relation of the regulating generating coils to the principal generating coils and the mains or feeders, substantially as described.

**No. 57,787. System of Electrical Distribution.**

(*Sys. d'enc. de distribution électrique.*)

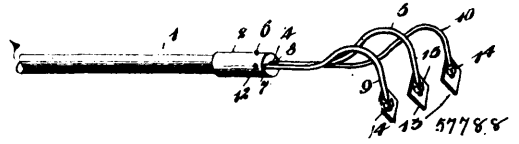


Cummings C. Chesney and John F. Kelly, both of Pittsfield, Massachusetts, U.S.A., 14th October, 1897; 6 years. (Filed 26th September, 1896.)

*Claim.*—1st. A system of electrical distribution, consisting of a work circuit containing translating devices, a dynamo having principal generating coils and independent auxiliary generating coils, and a circuit controller consisting of a controlling transformer energized by the current from said independent auxiliary coils and supplying an electro-motive force in series with or opposition to that of the main work circuit, substantially as described. 2nd. A system of electrical distribution consisting of more than one circuit, a dynamo having principal generating coils and independent auxiliary generating coils, and independent circuit controllers, each consisting of a controlling transformer energized by the current from said independent auxiliary generating coils, and supplying an electro-motive force in series with or opposition to that of the principal generating coils and the line, substantially as described. 3rd. A system of electrical distribution consisting of more than one circuit, a dynamo having principal generating coils and independent auxiliary generating coils and independent circuit controllers, each consisting of a controlling transformer having its primary in series with the independent auxiliary generating coils, and its secondary when in action in series with or opposition to the principal generating coils and the line, substantially as described.

**No. 57,788. Combination Garden Tool.**

(*Outil de jardinier.*)

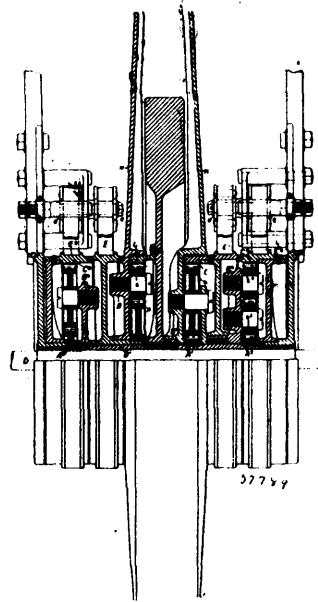


Elbert Osman Simmons, Englevalle, North Dakota, U.S.A., 14th October, 1897; 6 years. (Filed 10th August, 1897.)

*Claim.*—A cultivator comprising a handle provided with a fixed socket having a central rectangular shank orifice and lateral cylindrical orifices, in combination with a removable rectangular shank and lateral cylindrical shanks, and the removable cultivator blades, substantially as and for the purpose set forth.

**No. 57,789. Speed Gear for Motor Cars.**

(*Engrenage de vitesse pour chars à moteur.*)



George Gatlon Milhuish Hardingham, London, England, 14th October, 1897; 6 years. (Filed 4th October, 1897.)

*Claim.*—1st. The improved duplex differential driving gear, comprising two gear-trains, each consisting of three elements, namely: a central pinion, an intermediate wheel or set of intermediate wheels carried on an axially mounted body, and a surrounding internally toothed wheel, the central pinion of the one gear and the intermediate wheel carrier of the other gear being connected with the driving (or driven) part, and the intermediate wheel-carrier of the one gear and the outer wheel of the other gear being connected with the driven (or driving) part, whilst the outer wheel of the one gear and the central pinion of the other gear are respectively furnished with friction straps or other releasable devices whereby either the one gear-train or the other may be rendered operative, substantially as herein described. 2nd. The improved duplex differential driving gear of the general character of that referred to in the preceding claiming clause, but having the intermediate wheel-carriers of both gears connected with the driving (or driven) part, and the central pinion of the one gear and the outer wheel of the other gear connected with the driven (or driving) part, whilst the outer wheel of the one gear and the central pinion of the other gear are respectively furnished with friction straps or equivalent holding devices whereby either the one gear-train or the other may be rendered operative, substantially as herein described. 3rd. The improved duplex differential driving gear of the general character of that referred to in the first claiming clause, but having the outer wheel of the one gear and the intermediate wheel-carrier of the other gear connected with the driving (or driven) part, and the intermediate wheel-carrier of the one gear and the outer wheel of the other gear connected with the driven (or driving) part, whilst the central pinions of both gears are respectively furnished with friction straps or equivalent holding devices whereby either the one gear-train or the other may be rendered operative, substantially as herein described. 4th. The improved duplex differential driving gear of the general character of that referred to in the first claiming clause, but having the central

pinions of both gears connected with the driving (or driven) part, and the intermediate wheel-carriers of both gears connected with the driven (or driving) part, whilst the outer wheels of both gears are respectively furnished with friction straps or equivalent holding devices whereby either the one gear-train or the other may be rendered operative, substantially as herein described. 5th. The improved duplex differential driving gear of the general character of that referred to in the first claiming clause, but having the central pinion of the one gear and the intermediate wheel-carrier of the other gear connected with the driving (or driven) part, and the intermediate wheel-carrier of the one gear and the central pinion of the other gear connected with the driven (or driving) part, whilst the outer wheels of both gears are respectively furnished with friction straps or equivalent holding devices whereby either the one gear-train or the other may be rendered operative, substantially as herein described. 6th. The improved triplex (duplex and reverse) driving gear, comprising three gear-trains, each consisting of three elements, namely, a central pinion, an intermediate wheel or set of intermediate wheels carried on an axially mounted body, and a surrounding internally toothed wheel, the central pinion of the first (high-speed) gear and the intermediate wheel-carrier of the second (low-speed) gear being connected with the driving (or driving) part, and the intermediate wheel-carrier of the gear and the central pinion of the second gear being connected with the driving (or driven) part, whilst the outer wheels of both gears are respectively furnished with friction straps or equivalent holding devices, in conjunction with a third (reverse) gear having its elements connected in the same manner as the low-speed gear, the intermediate wheels of the third gear being duplicated and meshing with the central pinion and the outer wheel respectively and with one another so as to reverse the direction of rotation, substantially as herein described. 7th. The improved triplex (duplex and reverse) driving gear, comprising three gear-trains, each consisting of three elements, namely, a central pinion, an intermediate wheel or set of intermediate wheels carried on an axially mounted body, and a surrounding internally toothed wheel, the intermediate wheel-carriers of the first (high-speed) gear and of the second (low-speed) gear being connected with the driven (or driving) part, the outer wheel of the first gear and the central pinion of the second gear being connected with the driving (or driven) part, whilst the central pinion of the first gear and the outer wheel of the second gear are respectively furnished with friction straps or equivalent holding devices, in conjunction with a third (reverse) gear having its elements connected in the same manner as the low-speed gear, the intermediate wheels of the third gear being duplicated and meshing with the central pinion and the outer wheel respectively and with one another, so as to reverse the direction of rotation, substantially as herein described. 8th. The employment, between a high-speed motor-shaft and a duplex or triplex change gear, of speed-reducing mechanism provided with a friction strap or equivalent holding device, substantially as described with reference to the accompanying drawings, and whereby the transmission of power from the motor to the change-gear may be entirely intercepted. 9th. The combination, with duplex or triplex change-speed driving gear, of speed-reducing mechanism comprising a central pinion, connected with the motor-shaft, an intermediate wheel or set of intermediate wheels carried on an axially mounted body which also serves to transmit motion to the change-gear, and a surrounding internally toothed wheel permanently fixed or capable of being temporarily held stationary, the intermediate wheel or wheels meshing with the central pinion and with the surrounding internally toothed wheel, substantially as herein described. 10th. The combination, with change-gear mechanism, of speed-reducing gear comprising a central pinion, connected with the driving shaft (or other source of power), an intermediate wheel or set of intermediate wheels carried on an axially mounted body keyed on a sleeve in which the driving (or driven) shaft rotates and whereon the change-gear trains or some of them are mounted, and surrounding internally toothed wheel permanently fixed or capable of being temporarily held stationary, the intermediate wheel or wheels meshing with the central pinion and with the surrounding internally toothed wheel, substantially as described with reference to the accompanying drawings.

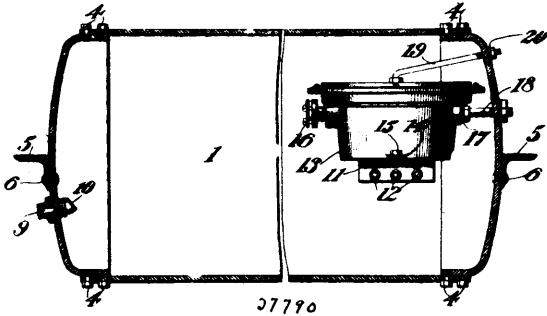
#### No 57,700. Gas Lighting Apparatus.

(Appareil à allumer le gaz.)

Robert Munn Dixon, East Orange, New Jersey, U.S.A., 14th October, 1897; 6 years. (Filed 6th September, 1897.)

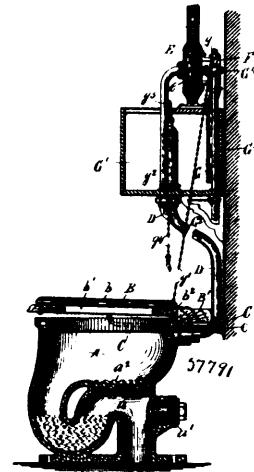
*Claim.*—1st. The combination, with a gas receiver, of a pressure regulator incorporated within the same and protected by the walls thereof, substantially in the manner and for the purpose specified. 2nd. The combination, with a gas receiver, of a pressure regulator enclosed within the same, and having its exterior pipe connections embodied within the walls of the receiver, substantially as set forth. 3rd. The combination, with a gas receiver and pressure regulator contained therein, of a high pressure gas inlet communicating with the regulator and opening directly into the receiver without an intervening connection of any kind, substantially as set forth. 4th. The combination, with a gas receiver head and opening therein, of a dish-shaped head, means for securing said parts together, and pressure-regulating mechanism carried within the dish-shaped head, substantially as set forth. 5th. The combination, with a gas receiver head, dish-shaped head secured thereto, and pressure-regulating mechanism therein, of a low-pressure outlet opening

from the face of the dish-shaped head, a high-pressure inlet formed in the wall thereof, a valve controlling the high-pressure inlet, and



mechanism for operating said valve on the outside of the dish-shaped head, substantially as set forth. 6th. The combination, with a gas receiver head, and dish-shaped head secured thereto, of a high-pressure inlet and low pressure outlet in the wall of said dish-shaped head, and a flexible diaphragm secured across the face of the dish-shaped head, substantially as set forth. 7th. The combination, with a gas receiver head and dish-shaped head secured thereto, of a high-pressure inlet and low-pressure outlet in the wall of said dish-shaped head, a flexible diaphragm secured across the face of the dish-shaped head, and a cap secured to the wall of the head and covering the diaphragm, substantially as set forth. 8th. The combination, with a receiver head, dish-shaped head secured thereto, and a high-pressure inlet and low-pressure outlet in the walls thereof, of an annular face upon the dish-shaped head, a ring, means for securing the ring to the face, a flexible diaphragm secured between the ring and the annular face, and a cap secured to the ring, substantially as set forth.

#### No. 57,791. Water Closet. (Latrine à eau.)

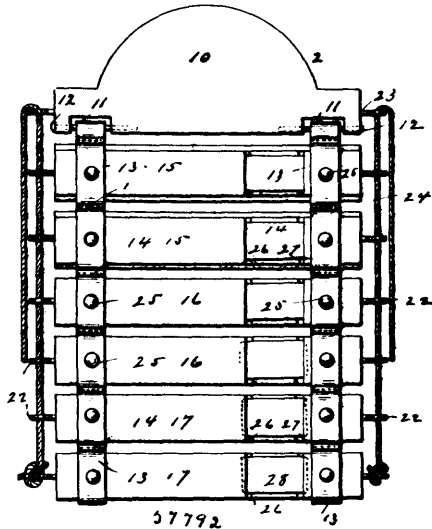


Michael Lawrence McGuire, Syracuse, New York, U.S.A., 14th October, 1897; 6 years. (Filed 7th October, 1897.)

*Claim.*—1st. The combination of a water-closet bowl A, a tank G<sup>1</sup> connected to the bowl for flushing the same, an uptake air-conduit or pipe D connected to the bowl A above its water-line, a feed-conduit or pipe G<sup>2</sup> for conducting the water to the tank G<sup>1</sup>, a fan E connected to the conduit or pipe D, a motor F connected to the fan E<sup>1</sup> and to the conduit or pipe G<sup>2</sup> for actuating said fan as the water flows through the conduit or pipe G<sup>2</sup> to the tank G<sup>1</sup>, and means for controlling the operation of the motor F, substantially as and for the purpose described. 2nd. The combination, with a water-closet bowl A, a tank G<sup>1</sup>, a conduit or pipe G<sup>2</sup> leading from the tank to the bowl for flushing the same, a feed conduit or pipe G<sup>3</sup> leading to the tank and provided with a valve G<sup>4</sup> for controlling the flow of water therethrough, a movable seat B, and connections between the seat and said valve for holding the valve open while the seat is depressed; of an uptake air-conduit or pipe D connected with the bowl A above its water-line, a fan E connected to the conduit or pipe D, and a water-motor F connected to the feed conduit or pipe between the valve G<sup>4</sup> and the tank G<sup>1</sup> for driving the fan E, substantially as and for the purpose specified. 3rd. The combination with a water-closet bowl A, a tank G<sup>1</sup>, a conduit or pipe G<sup>2</sup> leading from the tank to the bowl for flushing the same, a manually-operated valve G<sup>2</sup> for controlling the flow through the conduit or pipe G<sup>2</sup>, an overflow I connected to the conduit or pipe

G<sup>2</sup>, a feed conduit or pipe G<sup>3</sup> leading to said tank and provided with a valve G<sup>4</sup>, a movable seat B and connections between the seat and said valve for holding the valve open while the seat is depressed; of an uptake air-conduit or pipe connected with the bowl A, a fan E connected to the pipe D, and a water-motor F connected to the feed-conduit or pipe between the valve G<sup>4</sup> and the tank G<sup>1</sup> for driving the fan E, substantially as and for the purpose set forth.

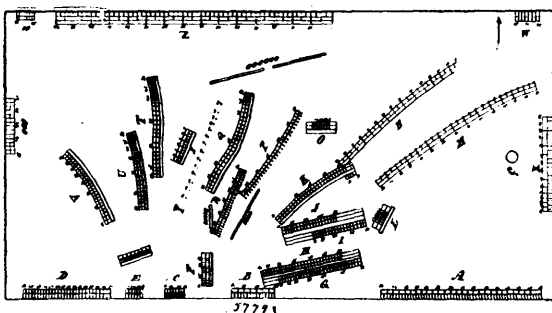
**No. 57,793. Transformable Advertising or Display Back.** (*Appareil d'annonce et d'etalage à transformation.*)



Edward J. Jutz, St. Louis, Missouri, U.S.A., 14th October, 1897; 6 years. (Filed 2nd September, 1897.)

*Claim.*—1st. In a device of the class described, a head-board having notches cut in its lower edge, webs doubled upon themselves and stitched together at intervals as required to form loops, the upper ends of said webs being placed in said notches and secured in position by means of pins inserted from the ends of said head-board through said webs, slats or placards removably inserted in the loops formed by said webs, open screw-eyes inserted in the ends of said slats or placards, closed screw-eyes inserted in the ends of said head-board and cords attached to the screw-eyes of the lower one of said slats or placards and extending upwardly through the intermediate ones of said slats or placards and through the closed screw-eyes in the ends of said head-board, substantially as specified. 2nd. In a device of the class described, a slat or placard having saw-cuts 26 and 27 formed in its face, the card 29 having the horizontal slits 30 and 31 placed in position with its ends in said saw-cuts 26 and 27, the small cards 32 having letters or figures printed upon their faces and placed in position with their ends in said slits 30 and 31, substantially as specified. 3rd. In a device of the class described, the head-board 10 having notches 11 formed in its lower edge, the webs 13 doubled upon themselves and secured together at intervals by the stitching 14 and forming loops, the pins 12 inserted from the ends of said head board through the upper ends of said webs, slats inserted in said loops, fasteners inserted through said webs and through said slats, said slats having saw-cuts 26 and 27 formed in their faces to receive the ends of price-list cards, substantially as specified.

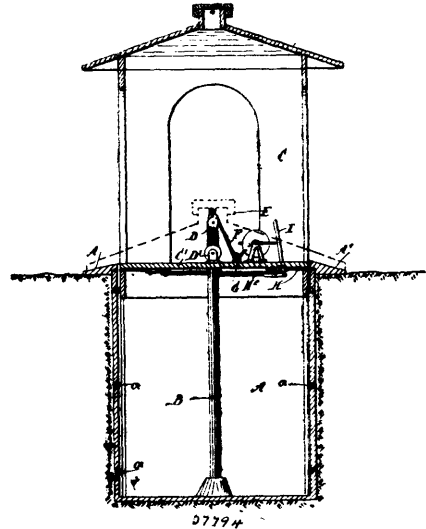
**No. 57,793. Chart for Cutting Coats and Vests.** (*Patron pour tailler les habits, etc.*)



Robert J. Smith, Ottawa, Ontario, Canada, 14th October, 1897; 6 years. (Filed 22nd September, 1897.)

*Claim.*—A rectangular oblong plate 2, as a chart or delineator for cutting coats and vests, having scales A, B, C, D, E, along the lower or base edge, scale X at the right edge, scale O O O at the left edge and scales W, Z, O O at the upper or top edge, straight diagonal slots provided with scales H, G, and straight slot parallel thereto provided with scales I, J, oblique short slots L, O, S, X X provided with scales diagonal slots O O O O O O O O, and O O O O O O, converging or oblique, curved slots V, U, T, Q, and K, and rows of perforations Y, R, P, N, and M provided with a figured scale, said slots and scales arranged relatively to each other, as set forth.

**No. 57,794. Cyclone Refuge.** (*Abri pour cyclone.*)



Richard T. Bond, Atoka, Choctaw Nation, Indian Territory, U.S.A., 15th October, 1897; 6 years. (Filed 11th October, 1897.)

*Claim.*—1st. A cyclone refuge, comprising a sunken chamber or pit, a cage or similar structure having a roof and adapted to fit within said chamber, and catches adapted to support said cage with its major part above said chamber, substantially as described. 2nd. A cyclone refuge, comprising a sunken chamber or pit, a cage or other structure having a roof and adapted to fit within said chamber, catches adapted to support said cage with its major part above said chamber, and a lever connected to said catches to simultaneously release them, substantially as described. 3rd. A cyclone refuge, comprising a sunken chamber or pit, a cage or similar structure having a roof and adapted to fit within said chamber, catches adapted to support said cage with its major part above said chamber, and hoisting means for raising and lowering said cage, substantially as described. 4th. A cyclone refuge, comprising a sunken chamber or pit, a central mast rising from the bottom thereof, a cage or similar structure having a roof and adapted to fit within said chamber, the floor of the cage having a hole to receive the mast, a hoisting apparatus comprising a cable guide attached to the top of the mast, and winding apparatus attached to the floor of the cage, substantially as described. 5th. A cyclone refuge, comprising a sunken chamber or pit, having outwardly sloping sills about its upper edge, a cage adapted to fit within said chamber and having a roof with projecting cornices adapted to fit closely to said sills, when dropped, and means for lowering and hoisting said cage, at will, substantially as described. 6th. A cyclone refuge, comprising a sunken chamber or pit, having outwardly sloping sills about its upper edge, a cage adapted to fit within said chamber and having a roof with projecting cornices adapted to fit closely to said sills when dropped, means for lowering and hoisting said cage at will, and friction rollers journaled in the side of the pit, substantially as described.

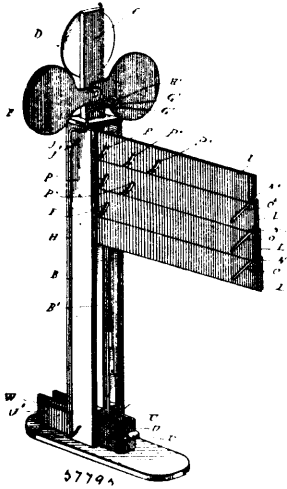
**No. 57,795. Train Signal.** (*Signal de chemin de fer*)

David McChain Dunn, Salisbury, North Carolina, U.S.A., 15th October, 1897; 6 years. (Filed 2nd October, 1897.)

*Claim.*—1st. A signalling apparatus adapted to be mounted on the pilot of an engine provided with signal discs, and means for operating these discs extending to the cab of the engine within reach of the engineer, substantially as described. 2nd. A signalling apparatus adapted to be mounted on the pilot of an engine provided with signal flags, and means for operating these flags extending to the cab of an engine within reach of the engineer, substantially as described. 3rd. A signalling apparatus adapted to be mounted on the pilot of an engine provided with signal discs and flags, and means for operating these discs and flags extending to the cab of the engine within reach of the engineer, substantially as described. 4th. A signalling apparatus adapted to be mounted on the pilot of an engine provided with two sets of signal discs, and means for dis-



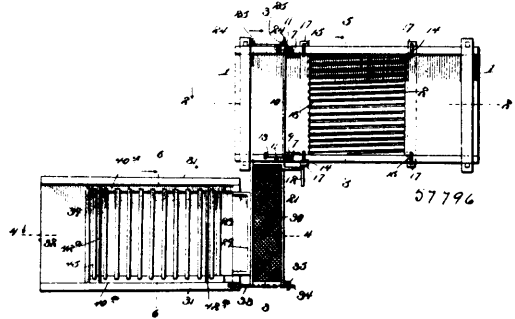
playing either set as desired or for folding and hiding either or both sets, such means extending to the cab of the engine within reach of



the engineer, substantially as described. 5th. A signalling apparatus adapted to be mounted upon the pilot of an engine provided with two sets of signalling flags, and means for displaying either set as desired or for folding and hiding either or both sets, such means extending to the cab of the engine within reach of the engineer, substantially as described. 6th. A signalling apparatus adapted to be mounted upon the pilot of an engine provided with two sets of signalling discs and flags, and means for displaying either set as desired or for folding and hiding either or both sets, such means extending to the cab of the engine within reach of the engineer, substantially as described. 7th. A signalling apparatus adapted to be mounted upon the pilot of an engine provided with a set of signalling discs pivoted near the top thereof, a rod connecting with these discs and extending to the bottom of the frame of the apparatus, a shaft pivotally connected to said rod and carrying a flag, a second shaft pivotally connected to said rod at the bottom, a sliding box or frame and a crank of this last-named shaft extending through a slot in said box or frame, whereby, by sliding the box the rod is depressed, the shafts turned to expose the flags and the discs lowered to a horizontal position, substantially as described. 8th. A signalling apparatus adapted to be mounted upon the pilot of an engine provided with two sets of signal discs and signal flags, a sliding box or frame, connections between the two sets of discs and flags and said frame, whereby the sliding of the box or frame in one direction will expose one set of discs and flags, and in the other direction will expose the other set of discs and flags, substantially as described. 9th. A signalling apparatus for a locomotive provided with pivoted signal discs and operating means extending to the cab of the engine for displaying or hiding said discs, substantially as described. 10th. A signalling apparatus for locomotives comprising a signal flag and operating means extending to the cab of the engine whereby the flag may be displayed or hidden as may be desired, substantially as described. 11th. A signal apparatus for locomotives comprising a set of signal discs and a signal flag of the same colour and operating means extending to the cab of the engine whereby both discs and flag may be displayed or hidden, substantially as described. 12th. A signalling apparatus for locomotives comprising two sets of signal discs of different colours, and operating means extending to the cab of the engine whereby either set may be displayed or both sets hidden, substantially as described. 13th. A signalling apparatus for locomotives comprising two sets of signal discs and flags of different colours, and operating means extending to the cab of the engine whereby the discs and flag of either colour may be displayed or both sets hidden, substantially as described. 14th. In a signalling apparatus, the combination with the frame thereof, of signal discs pivoted near the upper end having projecting pins, a vertical rod carrying at its top a horizontal guideway for said pins, a shaft pivoted between the uprights of the frame at their lower ends, a crank on said shaft pivotally connected to the lower end of the upright rod, and means for turning the shaft to raise or lower the rod and operate the discs on their pivots, substantially as described. 15th. In a signalling apparatus, the combination with the frame thereof, of signal discs pivoted near the upper end having projecting pins, a vertical rod carrying at its top a horizontal guideway for said pins, a shaft pivoted between the uprights near their upper ends and carrying a flag, a crank on said shaft pivotally connected with the vertical rod, and means for turning the lower shaft whereby the rod is raised or lowered to expose or hide the flag and discs, substantially as described. 16th. The combination in a signalling apparatus of three parallel uprights mounted on the base and connected by a cross-bar a short distance above the base, a sliding frame consisting of two sides and an end,

one side being mounted in a space between the first and second uprights and the other between the second and third uprights, one of the sides being provided with a slot consisting of a horizontal front portion and downwardly extending rear portion, and the other with a slot consisting of a horizontal rear portion and an upwardly extending front portion, two shafts mounted respectively between the first and second and second and third uprights, said shafts being bent to form cranks between the uprights and passed through slots in their respective sides of the box, and operating rods connected to outside cranks on said shaft, substantially as described. 17th. A signal flag consisting of a plurality of leaves, of sheet metal or other similar material, pivoted side by side on a series of pins arranged in a vertical line, and adapted to be folded side by side in a vertical position, or displayed edge to edge in a horizontal position, substantially as described. 18th. A signal flag consisting of a plurality of leaves of sheet metal or other analogous material pivoted at their inner ends upon pins arranged in a vertical line, means for moving the leaf mounted upon the upper pin into a vertical position, and connections between the leaves at their outer ends for causing the other leaves to fold the first to a horizontal position, substantially as described. 19th. A signal flag consisting of a plurality of leaves as L, L<sup>1</sup>, L<sup>2</sup>, L<sup>3</sup>, of sheet metal or other analogous material pivoted at their ends to pins arranged in a horizontal line, a series of diagonal slots in the outer ends of the leaves, except the upper one, and a series of pins in the leaves except the lower one, adapted to engage in the slots to cause the lower leaves to rise into a horizontal position with the upper one, substantially as described. 20th. A signal flag consisting of a series of leaves as L, L<sup>1</sup>, L<sup>2</sup>, L<sup>3</sup>, pivoted at their inner ends upon pins arranged in a vertical line, means for connecting the several leaves at their outer ends whereby all will be raised with the upper leaf to a horizontal position, and slots in the lower edges of the leaves except the bottom one, to ride over the lower pivotal pins to permit the leaves to be folded side by side in a vertical position, substantially as described.

**No. 57,796. Separator and Amalgamator.**  
(Appareil à séparer et amalgamer.)



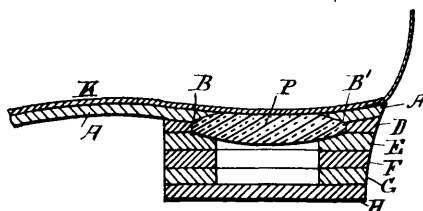
Lucius Sherman Pierce, Redcliff, Colorado, U.S.A., 15th October, 1897; 6 years. (Filed 25th May, 1897.)

*Claim.*—1st. In an apparatus of the class described, a flume provided with a bottom discharge-opening, a grill or grating removably fitted in said bottom discharge-opening, a discharge-box arranged against the bottom of the flume directly under the bottom discharge-opening therein and provided with an open top, an inclined bottom, and a gate-controlled discharge-opening at one end of said inclined bottom, securing-bars arranged transversely under said discharge-box and projecting at their extremities beyond the sides of said box, exteriorly-arranged securing-rods provided at their upper ends with hooks detachably engaging over the upper side-edges of the flume, said rods being bolted at their lower extremities to the extremities of said transversely-arranged securing-bars, and a suitably-arranged amalgamating device, substantially as set forth. 2nd. In an apparatus of the class described, the combination of a flume provided with a bottom discharge-opening, a discharge-box detachably fastened to the bottom of the flume below said bottom discharge-opening and provided with an end-gate-controlled discharge-opening, a combined separating and feed trough arranged under the flume at right angles thereto and detachably secured to the flume so as to bear under the discharging end of said discharge-box, said trough being provided beyond one side of the flume with a screened bottom discharge-pocket and a side discharge-opening leading from the pocket below the screen therein, and an amalgamating device arranged under and beyond the side discharge-opening of the trough and supporting one end of the latter, substantially as set forth. 3rd. In an apparatus of the class described, the combination of a flume provided with a bottom discharge-opening, a discharge-box detachably fastened to the bottom of the flume under said bottom discharge-opening, a trough arranged below the flume at right angles thereto and bearing under the discharging end of the discharge-box, said trough being provided at one side beyond the flume with a discharge-opening, a fastening-bail pivotally connected to one end of the trough and provided with hooks adapted to engage with keepers at one side of the flume, and an amalgamating-box, supporting amalgamating devices,

and provided at one end with a triangularly-shaped off-standing supporting-bracket disposed under said trough and provided at its outer end or apex with an eye engaging a pin at one side of the trough, substantially as set forth. 4th. In an apparatus of the class described, an amalgamating-box, a bottom pan slidably fitted within the box, a lower set of amalgamated riffle-plates arranged in said box, said lower riffle-plates being L-shaped in cross-section and having their lower horizontal portions contiguously meeting each other and resting flat on the bottom of the pan, and an upper set of parallel riffle-plates supported above the lower plates and projected at their lower edges into the spaces or pockets between said lower plates, substantially as set forth. 5th. In an apparatus of the class described, an amalgamating-box, a lower set of closely-arranged L-shaped riffle-plates mounted within said box, the straight vertically-disposed portions of said L-shaped plates being provided at their upper edges with right-angularly-disposed flanges, and an upper set of parallel vertically-disposed riffle-plates projected at their lower edges into the spaces or pockets between the lower riffle-plates, said upper riffle-plates being wider than the lower riffle-plates, and provided at their lower edges with right-angularly-disposed flanges located below and disposed in a reverse direction to the flanges of said lower riffle-plates, substantially as set forth. 6th. In an apparatus of the class described, an amalgamating-box, a bottom pan removably fitted within said box, upper and lower sets of alternating amalgamated riffle plates, the lower of which are arranged directly in said pan, opposite parallel holder-strips provided in their inner side edges with transverse grooves which loosely receive the ends of each set of riffle-plates respectively, and inverted-U-shaped retaining-bars arranged transversely between and above the holder-strips and adapted to detachably embrace the outer sides of said strips, substantially as set forth. 7th. In an apparatus of the class described, an amalgamating-box provided with a removable bottom-board to cover and uncover a bottom opening, a metallic pan arranged to rest on the bottom of said box and supporting amalgamating devices, and a flat-top heating-tank adapted to be detachably fitted in said bottom opening of the box so that its flat top will rest directly against the bottom of the pan therein, substantially as set forth.

**No. 57,797. Heels for Boots and Shoes.**

(*Talon pour chaussures.*)



57797

John Franklin Warner, Boston, Massachusetts, U.S.A., 15th October, 1897; 6 years. (Filed 9th October, 1897.)

*Claim.*—In a boot or shoe, a cushion pad to support and take the impact of the heel of the user, consisting of an elastic member as P, occupying a position immediately under a flexible inner sole and attached to or forming a part of the heel of the boot or shoe, substantially as and for the purpose set forth.

**No. 57,798. Method of Treating Native Aluminum Phosphates, and Minerals containing the same.** (*Méthode de traiter l'aluminium, etc.*)

Herman Poole, Petrolia, Ontario, Canada, 15th October, 1897; 6 years. (Filed 12th November, 1896.)

*Claim.*—1st. The herein described method of separating alumina from phosphoric acid in an alkaline solution of the same, which consists in adding silica to said solution, whereby the alumina is precipitated with the silica. 2nd. The herein described method of treating aluminum phosphate in minerals, which consists in subjecting it to heat in an aqueous alkaline solution, whereby the alkali is converted into a tri-basic phosphate and aluminate, then filtering and crystallizing out the tri-basic phosphate. 3rd. The herein described method of treating aluminum phosphate in minerals, which consists in subjecting it to heat in an alkaline solution, then adding silica for the separation of the alumina, and then filtering and crystallizing out the tri-basic phosphate. 4th. The herein described method of treating aluminum phosphate in minerals in the production of tri-basic phosphate therefrom, which consists in mixing the pulverized mineral with a boiling alkaline solution until the reaction is complete, then filtering, then adding to the filtrate silica in the form described, then boiling until the reaction is complete, filtering and crystallizing out the tri-basic phosphate. 5th. The herein described method of treating aluminum phosphate minerals, which consists in first mixing the pulverized mineral with a boiling solution of alkali to decompose it, then filtering, then adding silica to the boiling solution while open to the air whereby the alumina is precipitated

as a silicate, then crystallizing or otherwise separating out the tri-basic phosphate, and finally treating the aluminum silicate with sulphuric acid, whereby alumina sulphate is formed. 6th. The herein described method of obtaining tri-sodium phosphate, which consists in adding to a solution of tri-potassium phosphate, a salt of sodium whereby double decomposition ensues and the tri-sodium phosphate crystallizes out.

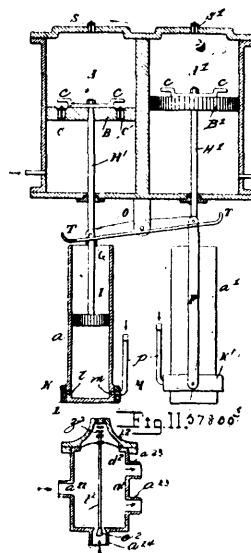
**No. 57,799. Preparation of Soluble Colloids of the Gelatine Class.** (*Préparation de colloïdes solubles.*)

Edmund James Mills, (Glasgow, Scotland, 15th October, 1897; 6 years. (Filed 20th October, 1896.)

*Claim.*—The formation and preparation from gelatine or a gelatine containing, or gelatinous substance, of a colloid soluble in cold water, by treating the same with water and a caustic alkaline earth, or a caustic or carbonated alkali, with or without the aid of heat, substantially as hereinbefore described.

**No. 57,800. Illuminating and Heating System.**

(*Système de chauffage et éclairage.*)



Paul Greyson de Schodt, Manur, Belgium, 15th October, 1897; 6 years. (Filed 27th November, 1896.)

*Claim.*—1st. In the method of obtaining high temperatures from a gaseous fuel, imparting to such fuel a live force greater than its normal live force, and bringing such fuel into forcible contact or collision with a body of air to subdivide and thereby effect the penetration or intimate admixture of the gaseous bodies before they reach the point of ignition, and causing the inflammable mixture to flow to such point of ignition substantially under the aforesaid increased live force, substantially as set forth. 2nd. In the method of obtaining high temperatures from a gaseous fuel, imparting to such fuel a live force greater than its normal live force and bringing such fuel into forcible contact or collision with a body of air to subdivide and thereby effect the penetration or intimate mixture of the gaseous bodies before they reach the point of ignition and causing the inflammable mixture to expand and flow to such point of ignition, substantially under the aforesaid increased live force, substantially as set forth. 3rd. In apparatus for producing high temperatures from a gaseous fuel, the combination with a burner, a source of gaseous fuel supply, and an impelling device connected with said source and adapted to impart to the gaseous fuel a live force greater than its normal live force, of a mixing chamber connected with the impelling device and burner, respectively, means for admitting air to said chamber and for bringing the gaseous fuel into forcible contact or collision with such air, whereby the masses of fuel and air are broken up or divided to effect their penetration into or intimate admixture with each other, for the purpose set forth. 4th. In apparatus for producing high temperatures from a gaseous fuel, the combination with a burner, a source of gaseous fuel supply, and an impelling device connected with said source and adapted to impart to the gaseous fuel a greater live force than its normal live force, of a mixing chamber connected with the impelling device and burner, respectively, means for admitting air to said chamber, and means for bringing the gaseous fuel into forcible contact or collision with the air, so as to produce swirls and eddies of the gaseous constituents to effect their penetration into, or intimate admixture with each other, substantially as and for the purpose set forth. 5th. In apparatus for producing high temperatures from a gaseous fuel, the combination with a burner, a source of gaseous fuel supply, an

impelling device connected with said source and adapted to impart to the gaseous fuel a greater live force than its normal live force, a mixing chamber connected with the impelling device and burner respectively, and means for admitting air to said chamber at an angle to the flow of gaseous fuel into the mixer to bring the gaseous constituents forcibly into contact and effect the penetration or intimate admixture of the masses thereof, substantially as and for the purpose set forth. 6th. In apparatus for producing high temperatures from a gaseous fuel, the combination with the burner, a source of gaseous fuel supply and an impelling device connected with said source and adapted to impart to the gaseous fuel a live force greater than its normal live force, a mixing chamber connected with the impelling device and burner, respectively, means for admitting the gaseous fuel to such chamber in divided jets so as to collide with each other within the chamber, and means for admitting air to said chamber, whereby the masses of air and gaseous fuel are broken up and their penetration into or intimate admixture with each other is effected, substantially as and for the purpose set forth. 7th. In apparatus for producing high temperatures from a gaseous fuel, the combination with a burner, a source of gaseous fuel supply and an impelling device connected with said source and adapted to impart to the gaseous fuel a greater live force than its normal live force, of a mixing chamber connected with the impelling device and burner respectively, means for admitting air into said chamber and for bringing the gaseous fuel into forcible contact or collision with such air, and an expansion chamber interposed between the said mixing chamber and burner, substantially as and for the purpose set forth. 8th. In apparatus for producing high temperatures from a gaseous fuel, the combination with a burner provided with an incandescent hood, a source of gaseous fuel supply, and an impelling device connected with said source and adapted to impart to the gaseous fuel a greater live force than its normal live force, of a mixing chamber connected with the impelling device and burner, respectively, means for admitting air to said chamber and for bringing the gaseous fuel into forcible contact or collision with such air, and a pressure regulator interposed between the mixing chamber and impelling device, substantially as and for the purpose set forth. 9th. In apparatus for producing high temperatures from a gaseous fuel, the combination with a burner, a source of gaseous fuel supply, and an impelling device connected with said source and adapted to impart to the gaseous fuel a live force greater than its normal live force, of a mixing chamber connected with said impelling apparatus and burner, respectively, means for admitting air to said chamber, means for dividing the gaseous fuel before or as it enters said chamber into streams, and means for bringing said streams into forcible contact or collision with the entering air, substantially as and for the purpose set forth. 10th. In incandescent illumination, by heat derived from a gaseous fuel, the combination with a burner, a source of gaseous fuel supply and an impelling device connected with said source and adapted to impart to the gaseous fuel a greater live force than its normal live force, of a mixing chamber secured to the burner and in communication with the impelling device, and means for admitting air to said chamber and for bringing the gaseous fuel into forcible contact or collision with the entering air to intimately admix the two before they reach the burner, substantially as and for the purpose set forth. 11th. In incandescent illumination by heat derived from a gaseous fuel, the combination with a burner, a source of gaseous fuel supply and an impelling device connected with said source and adapted to impart to the gaseous fuel a greater live force than its normal live force, of a mixing chamber secured to the burner and in communication with the impelling device, means for admitting air to said chamber and for bringing the gaseous fuel into forcible contact or collision with the entering air to intimately admix the two before they reach the burner, and an expansion chamber interposed between said mixing chamber and burner, substantially as and for the purpose set forth. 12th. In incandescent illumination by heat derived from a gaseous fuel, a lamp body comprising one or more burners, an incandescent body surrounding the same, an impelling device adapted to impart to a gaseous fuel admitted thereto a live force greater than its normal live force, a mixing chamber interposed between the burner and impeller, means for admitting air to said chamber and bringing the gaseous fuel into forcible contact or collision with the entering air, substantially as and for the purpose set forth. 13th. In incandescent illumination by heat derived from a gaseous fuel, a lamp body comprising one or more burners, an expansion chamber in communication therewith, an impelling device adapted to impart to a gaseous fuel admitted thereto a greater live force than its normal live force, a mixing chamber, and means for admitting air thereto and bringing the gaseous fuel into forcible contact or collision with such air, said mixing chamber interposed between the impelling device and expansion chamber, substantially as and for the purpose set forth. 14th. In incandescent illumination by heat derived from a gaseous fuel, a lamp body comprising one or more burners, an expansion chamber in communication therewith, an impelling device adapted to impart to the gaseous fuel admitted thereto a greater live force than its normal live force, a mixing chamber interposed between the impelling device and the expansion chamber, and means for admitting air to said mixing chamber and bringing the gaseous fuel into forcible contact or collision with such air, and means for dividing the gaseous fuel into fine jets before such collision, substantially as and for the purpose set forth. 15th. In incandescent illumination by heat

derived from a gaseous fuel, a lamp body comprising one or more burners, an expansion chamber in communication therewith, an impelling device adapted to impart to a gaseous fuel admitted thereto a greater live force than its normal live force, a mixing chamber interposed between the burner or burners and the impelling device, means for admitting air to said chamber and for bringing the gaseous fuel into forcible contact or collision with the entering air, and a regulator for maintaining the live force of the gaseous mixture supplied to the burner or burners constant, substantially as and for the purpose set forth. 16th. In apparatus for producing high temperatures from a gaseous fuel, the combination with one or more burners, an impelling device in communication therewith and adapted to impart to a gaseous fuel admitted thereto a live force greater than its normal live force, of a mixing chamber interposed between the impeller and burner or burners, means for admitting air to said chamber and bringing the gaseous fuel into forcible contact or collision with the entering air, and a regulator adapted to control the operation of the impelling device to maintain the live force of the gaseous fuel substantially constant, substantially as and for the purpose set forth. 17th. In apparatus for producing high temperatures from a gaseous fuel, the combination with one or more burners, a single or double acting piston, a compressor in communication therewith and adapted to compress a gaseous fuel sufficiently to impart to such fuel a greater live force than its normal live force, a mixing chamber interposed between the burner or burners and the compressor, and means for admitting air to said chamber and bringing the gaseous fuel into forcible contact or collision with the entering air, of a double or single acting fluid motor whose piston or pistons are carried by the piston rod or rods of the compressor, distributing and exhaust valves, and valve controlling mechanism for the motor controlled by the movements of the pistons, substantially as and for the purpose set forth. 18th. In apparatus for producing high temperatures from a gaseous fuel, the combination with one or more burners, a single or double acting piston, a compressor in communication therewith and adapted to compress a gaseous fuel sufficiently to impart to such fuel a greater live force than its normal live force, a mixing chamber interposed between the burner or burners and the compressor, and means for admitting air to said chamber and bringing the gaseous fuel into forcible contact or collision with the entering air, of a double or single acting fluid motor whose piston or pistons are carried by the piston rod or rods of the compressor, distributing and exhaust valves, and valve controlling mechanism for the motor, controlled by the movements of the pistons, and a pressure regulator interposed between the motor and the source of motive fluid supply, substantially as and for the purpose set forth. 19th. In apparatus for producing high temperatures from a gaseous fuel, the combination with one or more burners, a single or double acting piston, a compressor in communication therewith and adapted to compress a gaseous fuel sufficiently to impart to such fuel a greater live force than its normal live force, a mixing chamber interposed between the burner or burners and the compressor, and means for admitting air to said chamber and bringing the gaseous fuel into forcible contact or collision with the entering air, of a double or single acting fluid motor whose piston or pistons are carried by the piston rod or rods of the compressor, distributing and exhaust valves, and valve controlling mechanism for the motor, controlled by the movements of the pistons, and a pressure regulator interposed between the mixing chamber and burner or burners and between the motor and source of motive fluid supply respectively, substantially as set forth. 20th. In apparatus for producing high temperatures from a gaseous fuel, the combination of one or more burners, an impeller adapted to impart to a gaseous fuel admitted thereto a live force greater than its normal live force, a mixing chamber interposed between the impeller and burner or burners and in communication with both, said chamber having its upper end formed of segments of a paraboloid, and means for admitting air to the chamber and bringing the gaseous fuel admitted thereto into forcible contact or collision with such air, substantially as and for the purpose set forth. 21st. In apparatus for producing high temperatures from a gaseous fuel, the combination of one or more burners, an impeller adapted to impart to a gaseous fuel admitted thereto a live force greater than its normal live force, a mixing chamber interposed between the impeller and burner or burners and in communication with both, said chamber having its upper and lower ends formed of segments of a paraboloid, means for admitting the gaseous fuel from the impeller to the chamber at a point intermediate of its ends, and means for admitting air to said chamber and bringing the gaseous fuel into forcible contact or collision with such air within the chamber, substantially as and for the purpose set forth.

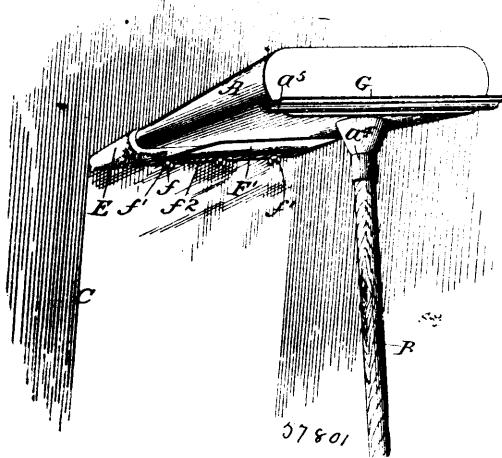
#### No. 57,801. Device for Applying Liquids.

(Appareil pour l'application des liquides.)

Charles Edwin Kilmer, Troy, New Jersey, and William Randel, Elizabeth, New Jersey, both in the U.S.A., 15th October, 1897; 6 years. (Filed 12th January, 1897.)

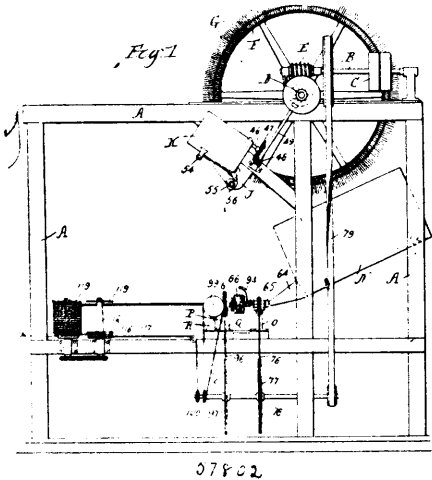
*Claim.*—1st. A device for applying liquids, comprising a reservoir having an elongated narrow mouth, a pad applied to said mouth to regulate the escape of liquid from the reservoir and to distribute the liquid over the surface operated upon, flaps secured to said reservoir on opposite sides of the mouth and projecting beyond the same to hold said pad between them, and clamping devices to

press said flaps more or less firmly together, substantially as shown and described. 2nd. A device for applying liquids, comprising a



reservoir having an elongated narrow mouth, a pad applied to said mouth to regulate the escape of liquid from the reservoir and to distribute the liquid over the surface operated upon, flaps secured to said reservoir on opposite sides of the mouth and projecting beyond the same to hold said pad between them, bearing strips applied to the outside of the flaps, and clamping bolts and nuts to press said flaps more or less firmly together, substantially as shown and described.

**No. 57,802. Machine for Making Grass Twine.**  
(Appareil pour la fabrication de fil d'herbage.)



George A. Lowry, Chicago, Illinois, U.S.A., 15th October, 1897; 6 years. (Filed 12th July, 1897.)

Claim.—1st. In a machine of the class described, a carrier provided with gripping jaws on the periphery thereof, and means for positively feeding the stalks of grass into position to be grasped by said gripping jaws, and means for actuating said carrier, substantially as and for the purpose set forth. 2nd. In a machine of the class described, a box or tray adapted to receive the material to be operated on, a carrier provided with gripping jaws on the periphery thereof, said box or tray arranged in the path of travel of said gripping jaws, means for positively feeding the material to said gripping jaws, and means for actuating said carrier, as and for the purpose set forth. 3rd. In a machine of the class described, a box or tray adapted to receive the material to be operated on, a portion of said box or tray being pivotally mounted, a carrier provided with gripping jaws, said box or tray arranged in the path of travel of said gripping jaws, means for agitating said box or tray, and means for actuating said carrier, as and for the purpose set forth. 4th. In a machine of the class described, a box or tray adapted to receive the material to be operated on, a portion of said box or tray being pivotally mounted, a carrier provided with gripping jaws, said box or tray arranged in the path of travel of said gripping jaws, means for rocking said pivotally mounted portion of the box or tray, and means for actuating said carrier, as and for the purpose set forth. 5th. In a machine of the class described, a carrier

provided on the periphery thereof with gripping jaws, a feedway for the material arranged transverse to the path of travel of said carrier, means for positively feeding the material to said feedway, and means for actuating said carrier, as and for the purpose set forth. 6th. In a machine of the class described, a carrier provided on the periphery thereof with gripping jaws, a feedway for the material arranged transverse to the path of travel of said carrier and inclined relative thereto, means for feeding the material to said feedway, and means for actuating said carrier, as and for the purpose set forth. 7th. In a machine of the class described, a carrier provided on the periphery thereof with gripping jaws, a feedway for the material, a box or tray arranged in communication with said feedway, and adapted to receive the material, and means for feeding the material from said box or tray to said feedway and in the path of travel of said gripping jaws, and means for actuating said carrier, as and for the purpose set forth. 8th. In a machine of the class described, a carrier provided on the periphery thereof with gripping jaws, a feedway for the material, fingers arranged to project into said feedway and adapted when actuated to feed the material into the path of travel of said jaws, means for actuating said fingers and means for actuating said carrier, as and for the purpose set forth. 9th. In a machine of the class described, a carrier provided with gripping jaws, a feedway for the material, disks having fingers mounted thereon, said fingers arranged to project into said feedway, means for rotating said disks whereby said fingers affect a feeding of the material into the path of travel of said gripping jaws, and means for actuating said carrier, as and for the purpose set forth. 10th. In a machine of the class described, a carrier provided with gripping jaws, a feedway for the material, a carrier provided with gripping jaws, a feedway for the material, disks having fingers pivotally mounted thereon, means for rotating said disks, means arranged in the path of travel of said fingers for projecting the same into the feedway and means for actuating said carrier, as and for the purpose set forth. 11th. In a machine of the class described, a carrier provided with gripping jaws, a feedway for the material, disks having fingers pivotally mounted thereon, means for rotating said disks, means arranged in the path of travel of said fingers for projecting the same into the feedway and means for actuating said carrier, as and for the purpose set forth. 12th. In a machine of the class described, a carrier having gripping jaws thereon, a feedway shaft arranged adjacent to said feedway and having disks mounted thereon, fingers pivotally mounted on said disks, means for rotating said disks, friction rollers arranged in the path of travel of said fingers and arranged to engage and project the same into said feedway, and means for actuating said carrier, as and for the purpose set forth. 13th. In a machine of the class described, a carrier provided with gripping jaws, a feedway, means for feeding the material through said feedway and into the path of travel of said gripping jaws, and means for yieldingly opposing the action of said feeding means, and means for actuating said carrier, as and for the purpose set forth. 14th. In a machine of the class described, a carrier provided with gripping jaws, a feedway, means for feeding the material through said feedway and into the path of travel of said gripping jaws, and a door for the end of said feedway, said door being yieldingly held in closed position, and means for actuating said carrier, as and for the purpose set forth. 15th. In a machine of the class described, a carrier provided with gripping jaws, means for actuating said carrier, a feedway for the material, said feedway provided with a door at the end thereof, a weighted arm attached to said door whereby it is normally and yieldingly maintained in closed position, means for adjustably regulating the tension of said weight, and means for feeding the material to said feedway, as and for the purpose set forth. 16th. In a machine of the class described, a carrier, gripping jaws mounted thereon, said gripping jaws comprising a stationary part and a part hinged to said stationary part, a rod connected to said hinged part, means for actuating said carrier, and means arranged in the path of travel of said rods for engaging the same whereby said rods are projected to open and close said jaws, as and for the purpose set forth. 17th. In a machine of the class described, a carrier provided with pairs of gripping jaws, one jaw of each pair being stationarily mounted on said carrier and the other jaw pivotally mounted on said stationarily mounted jaw, a rod connected to said pivotally mounted jaw, a spring for normally maintaining said jaws closed upon each other, and means arranged in the path of travel of said rods for engaging and projecting the same whereby said jaws are opened and closed, as and for the purposes set forth. 18th. In a machine of the class described, a carrier provided with a side flange, pairs of gripping jaws mounted on said carrier, one member of each pair being stationarily mounted on said carrier and the other member pivotally mounted on said stationary jaw, a rod connected to said pivoted member and arranged to project through said flange, and means arranged in the path of the projecting end of said rod for engaging said end and projecting said rod endwise, as and for the purpose set forth. 19th. In a machine of the class described, a carrier provided with a side flange, pairs of gripping jaws mounted on said carrier, one member of each pair being perforated and rigidly mounted on said carrier, and the other member being pivotally mounted on said rigid member, a rod connected to said pivoted member and arranged to pass through the perforation in the fixed member, and through said side flange whereby it is guided, and means arranged in the path of travel of the projecting ends of said rods for projecting the same endwise, as and for the purpose set forth. 20th. In a machine of the class described, a carrier, gripping jaws mounted thereon

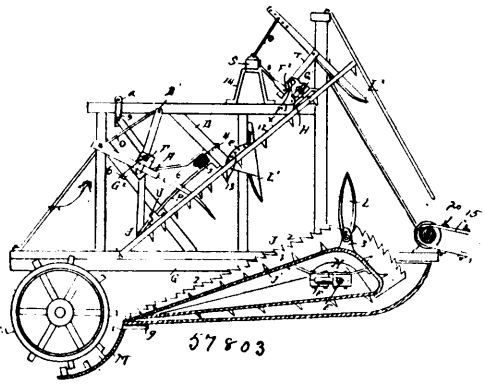
said gripping jaws comprising a stationary part and a part hinged or pivoted thereto, a rod connected to said hinged or pivoted part, means for actuating said carrier, cams arranged in the path of travel of said rods for engaging the same whereby the same are projected to open said jaws, and means for adjusting said cams, as and for the purpose set forth. 21st. In a machine of the class described, a carrier provided on the periphery thereof with pairs of hinged jaws, each succeeding pair of such jaws being arranged out of the peripheral line of the preceding pair, as and for the purpose set forth. 22nd. In a machine of the class described, a carrier provided with pairs of gripping jaws arranged to project radially from the periphery thereof, each succeeding pair of such jaws being arranged out of line both transversely and peripherally with respect to the preceding pair of jaws, as and for the purpose set forth. 23rd. In a machine of the class described, a carrier, pairs of gripping jaws, one member of each pair provided with a shoulder shank arranged to pass through the periphery of said carrier, a clamping nut for clamping said member to said carrier, the other member of said pair of jaws being pivotally mounted on the fixed member, means for automatically opening and closing said jaws, and means for actuating said carrier, as and for the purpose set forth. 24th. In a machine of the class described, a carrier having clamping jaws mounted on the periphery thereof, means for positively feeding the material into the path of travel of said jaws, means for automatically opening and closing said jaws to grasp the material therebetween, means for actuating said carrier, a receiver arranged in the path of travel of said carrier and means for automatically opening said jaws to deposit the material in said receiver, as and for the purpose set forth. 25th. In a machine of the class described, gripping jaws pivoted together, an operating rod pivotally connected to one of said jaws, and means for actuating said rod, as and for the purpose set forth. 26th. In a machine of the class described, gripping jaws pivoted together, one of said jaws with a rounded clamping face, as and for the purpose set forth. 27th. In a machine of the class described, gripping jaws pivoted together, one of said jaws being perforated and the other provided with a pin working through said perforation and a circular clamping face struck from said pin as a centre, as and for the purpose set forth. 28th. In a machine of the class described, a twisting device including a rotatable sleeve, clamping jaws pivotally mounted thereon, and means for imparting a tension to said clamping jaws, as and for the purpose set forth. 29th. In a machine of the class described, a twisting device including a rotatable sleeve, clamping jaws pivotally mounted thereon, said clamping jaws being weighted, as and for the purpose set forth. 30th. In a machine of the class described, a twister including a rotatable sleeve, clamping jaws pivotally mounted thereon and weights adjustably mounted on said jaws, as and for the purpose set forth. 31st. In a machine of the class described, a twister including a rotatable sleeve, clamping jaws pivotally mounted intermediate their ends upon said sleeve, and weights adjustably mounted on the free ends of said clamping jaws, as and for the purpose set forth. 32nd. In a machine of the class described, a twister including a rotatable sleeve, arms pivotally mounted on said sleeve and carrying co-operating clamping jaws at one end thereof and weights at the other end, and springs for normally pressing said clamping jaws ends towards each other, as and for the purpose set forth. 33rd. In an apparatus of the class described, an inclined trough, means for successively depositing the material therein, in combination with a twister adapted to receive the material from said trough and twist the same, as and for the purpose set forth. 34th. In an apparatus of the class described, an inclined trough, means for successively depositing the material therein, in combination with a twister adapted to receive and twist the material, means for wrapping the twisted material with thread and means for feeding the twisted and wrapped product from the machine, as and for the purpose set forth. 35th. In an apparatus of the class described, a twisting mechanism comprising a rotatable sleeve carrying means for clamping the material to be twisted in combination with a stationarily held funnel or guide for the material while being twisted, as and for the purpose set forth. 36th. In an apparatus of the class described, a twister comprising a rotatable sleeve, clamping jaws carried thereby, a stationarily mounted guiding funnel, and means for adjusting said funnel, as and for the purpose set forth. 37th. In an apparatus of the class described, a twister including a rotatable sleeve and a winding mechanism including a reversely rotating sleeve, the material arranged to pass through said sleeves, as and for the purpose set forth. 38th. In an apparatus of the class described, a wrapping mechanism including a tubular shaft carrying a spool of thread, the material to be wrapped arranged to pass through said sleeve, and means for rotating said shaft, as and for the purpose set forth. 39th. In an apparatus of the class described, a wrapping mechanism including a tubular shaft upon which the spool carrying the thread is sleeved, the material to be wrapped arranged to pass longitudinally through said shaft and spool, means for rotating said shaft, and means for feeding the material, as and for the purpose set forth. 40th. In an apparatus of the class described, a wrapping mechanism including a tubular shaft upon which the spool of thread is sleeved, the material to be wrapped being arranged to pass longitudinally

through said shaft, and means for rotating said twister and shaft in reverse directions, as and for the purpose set forth. 42nd. In an apparatus of the class described, a twister, a spool carrying the thread, the twister material arranged to pass longitudinally through said spool, and means for rotating said spool and twister in reverse directions, as and for the purpose set forth. 43rd. In an apparatus of the class described, a wrapping mechanism comprising a tubular support for the thread through which the material to be wrapped passes, a sleeve loosely maintained on said support and carrying guides for the thread, and means for rotating said support about the material and for feeding the material, as and for the purpose set forth. 44th. In an apparatus of the claim described, a wrapping mechanism including a tubular shaft, a tubular extension detachably connected to said shaft, said extension carrying the spool of thread, and means for feeding the material through said shaft and extension, as and for the purpose set forth. 45th. In an apparatus of the class described, a wrapping mechanism including a tubular shaft, a tubular extension detachably connected to said shaft, a spool of thread sleeved on said extension, thread guides loosely sleeved on said extension, and means for feeding the material through said shaft and extension, as and for the purpose set forth. 46th. In an apparatus of the class described, a wrapping mechanism including a rotary tubular shaft carrying a flange, a flanged tubular extension, carrying the thread and means for detachably securing said flanges together, as and for the purpose set forth. 47th. In an apparatus of the class described, a wrapping mechanism including a rotary tubular shaft carrying a flange, said flange being slotted in the periphery thereof and a tubular extension carrying a spool of thread, said extension also being provided with a flange, said flange being slotted in the periphery thereof and bolts secured in said flanges and respectively arranged to pass through said slots, as and for the purpose set forth. 48th. In an apparatus of the class described, a wrapping mechanism including a rotary tubular shaft having a flange, said flange being provided with a countersunk seat in the face thereof, and a flanged tubular extension, carrying the wrapping thread, the flange of said extension provided with a shoulder adapted to be received in said seat and means for feeding the material through said shaft and extension, as and for the purpose set forth. 49th. In an apparatus of the class described, a feeding mechanism comprising a pair of rolls arranged to grasp the material therebetween, one of said rolls being yieldingly mounted, and means for driving said rolls, as and for the purpose set forth. 50th. In an apparatus of the class described, a feeding mechanism including a stationarily mounted roll, an arm pivotally mounted intermediate to its ends and carrying in one end thereof a co-operating roll, a spring normally acting to press said rolls together, and gearing for driving said rolls, as and for the purpose set forth. 51st. In an apparatus of the class described, a feeding mechanism including a stationarily mounted roll, an arm pivotally mounted intermediate its ends and carrying a co-operating roll in one end thereof, the other end of said arm serving as a handle by which said rolls may be separated, a spring arranged to act upon said arm to yieldingly press said rolls into engagement with each other, and means for rotating said rolls, as and for the purpose set forth. 52nd. In an apparatus of the class described, a twisting mechanism and a feeding mechanism in combination with a winding reel and means for actuating said several mechanisms, as and for the purpose set forth. 53rd. In an apparatus of the class described, a twisting mechanism, and a feeding mechanism in combination with a winding reel and a deployer for guiding the material to said reel, and means for actuating said several mechanisms, as and for the purpose set forth. 54th. The combination with twisting, wrapping and feeding mechanisms, of a winding reel, and means for actuating said several devices, as and for the purpose set forth. 55th. In combination with twisting, wrapping and feeding mechanisms, of a winding reel and a deployer, and means for actuating said several mechanisms, as and for the purpose set forth. 56th. The combination with a winding reel and means for rotating the same, of a deployer, and means for moving the same to and from endwise to said reel, as and for the purpose set forth. 57th. In an apparatus of the class described, a winding reel comprising a shaft having end flanges, one of said flanges being removable, as and for the purpose set forth. 58th. In an apparatus of the class described, a winding reel comprising a shaft having end flanges, one of said flanges provided with a peripheral notch serving as means for securing the end of the material to be wrapped, as and for the purpose set forth. 59th. In an apparatus of the class described, a winding reel comprising a shaft, and means for frictionally driving said shaft, as and for the purpose set forth. 60th. In an apparatus of the class described, a winding reel comprising a tapering shaft, said shaft provided with end flanges, one of said flanges being removable, as and for the purpose set forth. 61st. In an apparatus of the class described, the combination with a winding reel and means for rotating the same, of a shaft arranged parallel therewith and having reverse screw threads formed thereon, and a deployer for the material arranged to be actuated by said shaft, and means for rotating said shaft, as and for the purpose set forth. 62nd. In an apparatus of the class described, a shaft having a flange, means for rotating said shaft, a winding reel loosely sleeved on said shaft and also provided with a flange arranged to rest on the flange of the said shaft whereby said reel is driven, as and for the purpose set forth. 63rd. In an apparatus of the class described, a deployer comprising a reversely threaded shaft, a sleeve mounted thereon and carrying a guide through which the material passes, and means for rotating said

shaft, as and for the purpose set forth. 64th. In an apparatus of the class described, a depoyer comprising a reversely threaded shaft, a sleeve mounted thereon, a movable jaw carried by said sleeve and arranged to engage the threads on said shaft, a guide for the material carried by said sleeve, and means for rotating said shaft, as and for the purpose set forth. 65th. In an apparatus of the class described, a depoyer comprising a reversely threaded shaft, a sleeve mounted thereon, a movable jaw carried by said sleeve, a spring arranged to normally press said jaw into engagement with the threads of said shaft, a guide for the material carried by said sleeve, and means for rotating said shaft, as and for the purpose set forth. 66th. In an apparatus of the class described, a winding mechanism comprising two or more reels arranged in proximity to each other, means for actuating said reels and a depoyer arranged to guide the material to either one or the other of said reels, and means for actuating said depoyer, as and for the purpose set forth. 67th. In a grass twine machine, the combination of the following elements: means for feeding the grass, a twisting mechanism, a wrapping mechanism, a feeding mechanism and a winding mechanism, as and for the purpose set forth.

**No. 57,803. Band-Cutter and Feeder.**

(*Coupe-hart et alimentateur.*)



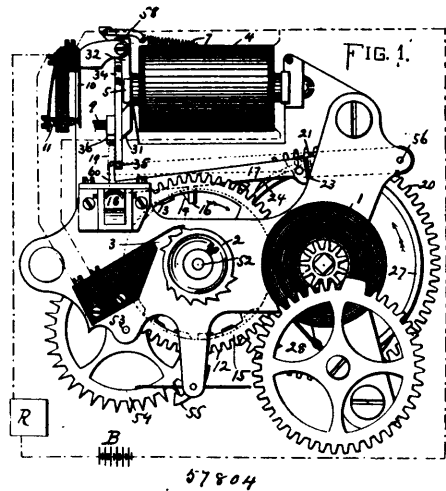
William F. Greimann, Garner, Iowa, U.S.A., 15th October, 1897; 6 years. (Filed 21st September, 1897.)

*Claim.*—1st. The combination with an upper feeder composed of a series of independent sections, arranged side by side, a crank-shaft carrying said sections, band-cutters, a walking beam to which said cutters are pivotally attached, rods adjustably connecting the upper ends of the band-cutters and the inner ends of the walking-beam with a fixed portion of the frame, a sliding frame adapted to support the inner ends of said feeder-sections, and forks carried by a crank-shaft journaled to said sliding frame, substantially as set forth. 2nd. The combination with the upper section having longitudinal slots, of a walking-beam, knives working through the slots of the upper section and deriving their motion from the walking-beam, and the band-knife attached to the forward end of said walking-beam, means for driving the upper section at one end and supporting it in reciprocation at the other, and means for driving the walking-beam, substantially as set forth. 3rd. The combination with the upper section having longitudinal slots, of a walking-beam, knives working through the slots of the upper section and deriving their motion from the walking-beam and the band knife attached to the forward end of said walking-beam, and an adjustable stay-rod attached to the upper end of the band-knife, means for supporting the upper section at one end in its reciprocation and means for driving the walking-beam and means for driving the upper sections at one end, substantially as set forth. 4th. The combination with the upper section having longitudinal slots, of a walking-beam, knives working through the slots of the upper section and deriving their motion from the walking-beam and the band-knife combined with a band-cutter attached to the forward end of said walking-beam, an adjustable stay-rod attached to the upper end of the band-knife, a cross-bar to which said stay-rod is connected, means for driving the walking-beam and adjustable stay-rods connected to the lower end of the walking-beam and to the front side of the cross-bar, substantially as set forth. 5th. The combination with the upper sections provided with cups or conveyers and the adjustable sickle-knives secured near the center of said sections, of the lower sections having serrated sides and the bed provided with cups or conveyers, and means for supporting and reciprocating the upper and lower sections, substantially as set forth. 6th. The combination with the upper sections provided with cups or conveyers and the adjustable sickle-knives secured near the center of said sections, of the lower sections having serrated sides and the bed provided with cups or conveyers inclining backward toward the cylinder and serrated, and means for supporting and reciprocating the upper and lower sections, substantially as set forth. 7th. The combination with an upper feeder, a means for imparting a vibratory and reciprocatory move-

ment thereto, of a fork adapted to have its prongs working beyond the active face of said feeder, and means for imparting an oscillatory and elliptical movement thereto in an opposite direction to the movement of the said feeder, substantially as specified. 8th. In combination, an upper feeder, composed of a series of independent sections arranged side by side, a crank shaft having the said sections mounted on the crank portions thereof, seats F<sup>3</sup>, attached to the boxes mounted on the said crank portions, walking-beams mounted in said seats, band-cutters pivotally attached to the outer ends of the walking-beams, rods adjustably connecting the upper ends of the band-cutters and the inner ends of the walking-beams with a fixed portion of the frame, a sliding frame 5, provided with guide rods to support the inner ends of the feeder-sections, a crank-shaft journaled in the sliding frame, and forks on the crank portions of the said crank-shaft, substantially as described for the purpose set forth. 9th. The combination with the upper and the lower sections, of a pan or a trough under the deflected parts of the lower sections to receive and facilitate elevation of loose grain to the bed of the upper sections, substantially as specified. 10th. In a band-cutter and feeder, the combination of the elevator cups, a pan or trough arranged beneath said elevator cups, whereby loose grain lying within said trough is carried up and back to the cylinder, substantially as described.

**No. 57,804. Non-interfering Signal Apparatus.**

(*Boite à signal à non-intervention.*)



John Jesse Ruddick, Newton, Massachusetts, U.S.A., 15th October, 1897; 6 years. (Filed 9th November, 1896.)

*Claim.*—1st. In a non-interference signal-box, a signalling train, a signalling lever, a non-interference magnet in the signalling circuit, combined with a box-number, circuit-controller, and shunt lever therefor, a trap for the said shunt-lever co-extensive with a complete round of the signal and having notches corresponding in number and position with a round of the box-number, for holding the shunt-lever at each and every time the circuit is opened at the home-box and releasing it at each and every time the circuit is closed at the home-box to enable said lever to assume its abnormal position if the circuit is open at another point, the said trap being also constructed and arranged to allow said lever to resume its normal position when once thrown out only at the beginning of a round of the box-number, substantially as described. 2nd. A successive non-interference signal-box containing the following instrumentalities, viz.: A windable signalling mechanism, a non-interference magnet and its armature, means for setting the signal, a controlling lever which controls the transmission of the signal, and a trap co-extensive with a complete round of the box-number for said controlling-lever, constructed and arranged to release the controlling-lever when the circuit is closed at the home-box and opened at a distant point, that it may retain the set signal, and also allow the controlling-lever to resume its normal position and permit or effect the transmission of the retained signal, only at the beginning of a succeeding round of the box-number, substantially as described. 3rd. In a successive non-interference signal-box, a signalling-train, and a controlling-lever for controlling the transmission of the signal, a non-interference magnet and its armature governing the position of the said controlling-lever, combined with a trap, co-extensive with a round of the box-number, with which the said controlling-lever also co-operates, said trap comprising a movable-plate having notches corresponding in number and position to the closures of the signalling-circuit, during a round of the box-number, holding the controlling-lever mechanically, when the circuit is opened at the home-box and releasing it when the circuit is closed at the home-box to enable it to assume its abnormal position, if the circuit is open at a distant point, said trap, however, permitting the control-

ling-lever to resume its normal position when once thrown out, only at the beginning of a succeeding round, substantially as described.

4th. In a successive non-interference signal-box, a signalling-train, a controlling-lever which controls the transmission of the signal, a non-interference magnet and its armature, combined with a trap, co-extensive with a round of the box-number, which positively holds the controlling-lever at each and every time the circuit is opened at the home-box, and releases said controlling-lever at each and every time the circuit is closed at the home-box, to enable said lever to assume its abnormal position if the circuit is open at another point, and which allows said lever to resume its normal position, when once thrown out only at the beginning of a round of the box-number, substantially as described.

5th. In a non-interference signal-box, a signalling-train, a hand-operated signalling-lever for setting the signal, a non-interference magnet and its armature and a controlling-lever governed by said armature, which, when moved into its abnormal position, retains the set signal, a trap, co-extensive with a round of the box-number for said controlling-lever which holds it, when the circuit is opened at the home-box, and releases it, to place it under the influence of the non-interference magnet, when the circuit is closed at the home-box, to thereby enable it to be moved into its abnormal position if the line is in use, and which also prevents it from returning to its normal position when once thrown out until the beginning of a succeeding round of the box-number, substantially as described.

6th. In a signal-box, a signalling-train, a non-interference magnet and its armature, combined with a controlling-lever that controls the transmission of the signal, and a trap co-extensive with a round of the box-number for the controlling-lever, notched to correspond in number and position to a round of the box-number to hold the controlling-lever at each and every time the circuit is opened at the home-box, and release it at each and every time the circuit is closed at the home-box, and also to enable said lever to assume its normal position when once thrown out only at the beginning of a round of the box-number, substantially as described.

7th. In a successive, non-interference signalling-box, a signalling-train, a controlling-lever which controls the transmission of the signal, a non-interference magnet and its armature, combined with a trap co-extensive with a round of the box-number which holds the controlling-lever whenever the circuit is opened at the home-box, and releases said controlling-lever one or more of the times that the circuit is closed at the home-box during each number-group of a round to enable said lever to assume its abnormal position if the circuit is open at another point, and which allows said lever to resume its normal position when once thrown out only at the beginning of a round of the box-number, substantially as described.

8th. In a successive, non-interference signal-box, a signalling-train, a controlling-lever which controls the transmission of the signal, a non-interference magnet and its armature, combined with a trap co-extensive with a round of the box-number which holds the controlling-lever whenever the circuit is opened at the home-box, and releases said controlling-lever the first and last times that the circuit is closed at the home box during each number-group of the round to enable said lever to assume its abnormal position if the circuit is open at another point, and which also allows said lever to resume its normal position when once thrown out only at the beginning of a round of the box-number, substantially as described.

9th. In a successive, non-interference signal-box, a signalling-train, a controlling-lever which controls the transmission of the signal, a non-interference magnet and its armature, combined with a trap co-extensive with a round of the box-number, which holds the controlling-lever whenever the circuit is opened at the home-box, and releases said controlling-lever one or more of the times that the circuit is closed at the home-box during each number-group of a round to enable said lever to assume its abnormal position if the circuit is open at another point, and a restoring device for the controlling-lever which engages and moves it only at the beginning of a round, substantially as described.

10th. In a successive, non-interference signal-box, a signalling-train, a non-interference magnet and its armature, combined with a box number circuit-controller, a shunt-lever therefor, a trap for the shunt-lever co-extensive with a round of the signal which holds said shunt-lever whenever the circuit is opened at the home-box, and releases it one or more of the times that the circuit is closed at the home-box during each number-group of a round, that it may assume its abnormal position and shunt the circuit-controller if the circuit is open at any other point, and also to break said shunt if closed only at the beginning of a round of the box-number, substantially as described.

11th. In a non-interference signal-box, a motor, means for operating it, a retarded operative device consisting of a signal-wheel moved by the train to operate the circuit for its first time after the train has run a longer time than the longest closure in any signal, and a determining device comprising a non-interference magnet, its armature, and a controlling-lever governed by said magnet, which acts during said lapse of time to prevent an interfering signal being sent, substantially as described.

12th. In a non-interference signal-box, a motor, means for operating it, a retarded operative device consisting of a signal-wheel moved by the train to operate the circuit for its first time after the train has run a longer time than the longest closure in any signal, and a determining device comprising a non-interference magnet, its armature, and a shunt-lever governed by it, which is free to act during said lapse of time to prevent an interfering signal being sent, substantially as described.

13th. In a non-interference signal-box, a motor, means for operating it, a retarded operative device consisting

of a signal-wheel moved by the train to operate the circuit for its first time after the train has run a longer time than the longest closure in any signal, and a determining device comprising a non-interference magnet, its armature, and a controlling lever governed by it, which is free to act during said lapse of time, and a locking lever for the train also governed by said armature, substantially as described.

14th. In a non-interference signal-box, a motor, means for operating it, a retarded operative device consisting of a signal-wheel moved by the train to operate the circuit for its first time after the train has run a longer time than the longest closure in any signal, and a determining device comprising a non-interference magnet, its armature, and a shunt lever governed by it, which is free to act during said lapse of time to prevent an interfering signal being sent, and a locking lever for the train also governed by said armature, substantially as described.

15th. In a non-interference signal-box, a motor, means for operating it, a retarded operative device consisting of a signal-wheel moved by the train to operate the circuit for its first time after the train has run a longer time than the longest closure in any signal, and a determining device comprising a non-interference magnet, its armature, and a controlling lever governed by it, which is free to act during said lapse of time to prevent an interfering signal being sent and a locking device for said controlling lever, substantially as described.

16th. In a successive non-interference signal-box, a motor, means for operating it, a retarded operative device consisting of a signal-wheel moved by the train to operate the circuit for its first time after the train has run a longer time than the longest closure in any signal, a non-interference magnet, and its armature, and a controlling lever governed by said armature which is free to act during said lapse of time, to retain the set signal, and signal-controlling mechanism governed by the train in running, of which the retarded operative device forms a co-operative part, which operates to release the said retained signal upon a closure of the signalling circuit of longer duration than the longest closure in any signal, next preceding the beginning of a round, substantially as described.

17th. In a non-interference signal-box, a motor, means for operating it, a retarded operative device consisting of a signal-wheel moved by the train to operate the circuit for its first time after the train has run a longer time than the longest closure in any signal, and a determining device comprising a non-interference magnet, its armature, and a controlling lever governed by said magnet, which is free to act during said lapse of time to prevent an interfering signal being sent, and a trap for the said controlling-lever co-extensive with a round of the signal which holds said controlling-lever whenever the circuit is opened at the home box and releases it one or more of the times that the circuit is closed at the home box during each number group of a round, that it may assume its abnormal position if the circuit is open at another point, and which allows said lever, when once thrown out, to resume its normal position only at the beginning of a round, substantially as described.

18th. In a signal-box, a signalling-train, a circuit-controller, a non-interference magnet and its armature, combined with a controlling lever governed by said armature, which controls the transmission of the signal, and an arm which vibrates to correspond with the makes and breaks of the circuit wheel which engages said controlling lever on the breaks and releases the same on the makes, substantially as described.

19th. In a signal-box, a signalling-train, a circuit-controller and a shunt for it, a non-interference magnet and its armature, combined with a vibrating arm for said shunt, and means for vibrating said arm to correspond with the contacts of the circuit-controller during a round of the signal transmitted, substantially as described.

20th. In a signal-box, a signalling train, a circuit controller, a shunt for it, a non-interference magnet and its armature, combined with a vibrating arm that holds the operating member of said shunt, and means for vibrating said arm to correspond with the contacts at the circuit controller during a round of the box-number, substantially as described.

21st. In a signal-box, a signalling train, a circuit-controller, a non-interference magnet and its armature, combined with a lever that controls the transmission of the signal, and a vibrating arm as 17, for holding said lever at intervals corresponding with the contacts of the signalling-circuit controller, substantially as described.

22nd. In a signal-box, a signalling train, a circuit-controller, a non-interference magnet and its armature, combined with a controlling-lever governed by said armature which controls the transmission of the signal, and a releasing lever for the train, which is moved to release the train and is thereafter vibrated to lock and release the controlling-lever during the transmission of the signal, substantially as described.

23rd. In a signal-box, a signalling-train, a circuit-controller, a non-interference magnet and its armature, combined with a controlling-lever governed by said armature, which controls the transmission of the signal, and a vibrating arm which engages said controlling-lever when the circuit is open at the home box and releases the same one or more of the times that the circuit is closed at the home box, substantially as described.

24th. In a signal-box, a signalling-train, a circuit-controller, a non-interference magnet and its armature, combined with a controlling-lever governed by said armature which controls the transmission of the signal, and an arm which engages and holds the said controlling-lever when the circuit is opened at the home box and releases said controlling-lever one or more of the times that the circuit is closed at the home box during each number group of the round, substantially as described.

25th. In a signal-box, a signalling-train, a circuit-controller, a non-interference mag-

net and its armature, combined with a shunt-controlling lever governed by said armature which controls the transmission of the signal, and an arm which engages and holds the said shunt-controlling lever when the circuit is opened at the home box and releases said shunt-controlling lever one or more of the times that the circuit is closed at the home box during each number group of the round, substantially as described. 25th. In a signal-box, a signalling-train, a non-interference magnet and its armature, combined with a controlling-lever governed by said armature which controls the transmission of the signal, and a vibrating arm which normally holds the controlling lever and which engages and disengages said controlling-lever during the transmission of the signal according to the position of said arm, substantially as described. 27th. In a signal-box, a signalling-train, a non-interference magnet and its armature, combined with a controlling-lever which controls the transmission of the signal, and an arm vibrating to correspond with the makes and breaks of the circuit-wheel, said controlling-lever being alternately held by said armature and vibrating arm, substantially as described. 28th. In a non-interference signal-box, a signalling-train, and locking lever for it, combined with a non-interference magnet, its armature, and a controlling-lever which controls the transmission of the signal, and means for vibrating said locking lever to alternately lock and release the controlling-lever during the transmission of the signal, substantially as described. 29th. In an electric signalling apparatus, the combination with a signal-wheel, and contacts therefor, of an actuating train for said wheel, a releasing-lever for the train adapted to be moved two steps, one manually controlled to release the train, and the other controlled by the train in running, to enable the signalling contacts to operate the signalling-circuit, substantially as described. 30th. In an electric signalling apparatus, the combination with a signal-wheel and contacts therefor, of an actuating train for said wheel, a releasing-lever for the train adapted to be moved two steps, one manually operated to release the train, and the other controlled by the train in running to enable the signalling-contacts to operate the signalling-circuit, substantially as described. 31st. In an electric signalling apparatus, the combination with a signal-wheel and contacts therefor, of an actuating-train for said wheel, a releasing-lever for the train adapted to be moved manually, and an operative connection between said train and releasing-lever whereby the latter is moved a second step after a predetermined length of time, substantially as described. 32nd. The combination in a signalling apparatus, of a signal-wheel and its contacts and actuating train, a non-interference magnet in the circuit, controlling a shunt-circuit around the signal-wheel and magnet, a spring tending to hold the armature of said magnet away therefrom, a releasing device for the said train normally holding the armature against the force of said spring and a stop on said releasing device for holding the said armature to the poles of the magnet when said lever is in its abnormal position, substantially as described. 33rd. In a non-interference signal-box, a signalling train, a locking lever for it, a non-interference magnet and its armature, said locking lever normally locking both the train and armature and adapted to be moved two steps, one manually controlled to release both the train and armature, and the other controlled by the train in running, to lock the armature at the beginning of a round of the box number, substantially as described. 34th. In a non-interference signal-box, a signalling-train, a locking-lever for it, a non-interference magnet and its armature, said locking-lever normally locking both the train and armature and adapted to be moved two steps, one manually controlled to release both the train and armature, and the other controlled by the train in running, to lock the armature after the train has run a longer time than the longest closure in any signal at a beginning of a round of the box-number, substantially as described. 35th. In a non-interference signal-box, a signalling-train, a locking-lever for it adapted to be moved two steps, one manually controlled and the other controlled by the train in running, combined with a non-interference magnet, and its armature, which is locked in its attracted position by said locking-lever when at rest and again locked at the completion of its second step, substantially as described. 36th. In a non-interference signal-box, a signalling-train, a locking-lever for it, adapted to be moved two steps, a non-interference magnet, and its armature, combined with a controlling lever which controls the transmission of the signal, which lever is locked in one or another position upon the completion of the second step of the locking-lever, substantially as described. 37th. In a non interfering signal-box, a signal-wheel and contacts therefor, and an actuating train for said wheel, combined with a releasing lever for the train adapted to be moved two steps, one manually controlled to release the train, and the other controlled by the train in running, and a shunt-circuit for the contacts of the signal-wheel, the operating member of the shunt-switch being held from closing the shunt by said releasing-lever when moved its second step, substantially as described. 38th. In a non-interfering signal-box, a signal-wheel and contacts therefor, and an actuating train for said wheel, combined with a releasing lever for the train adapted to be moved two steps, one manually controlled to release the train, and the other controlled by the train in running, and a non-interference magnet and its armature which is locked by said releasing-lever when moved its second step, substantially as described. 39th. In a non-interference signal-box, a signalling train, and a non-interference magnet and its armature, combined with a releasing-lever for said train adapted to be moved two steps, one manually controlled to release the train and the other controlled by

the train in running, and a controlling lever which controls the transmission of the signal which is engaged and held by the releasing-lever when the train is running only after the train has run a longer time than the longest closure in any signal, substantially as described. 40th. In a non-interfering signal-box, a signalling-train, a locking lever for it, a non-interference magnet and its armature, and a controlling-lever which controls the transmission of the signal, said locking lever normally locking both the controlling-lever and armature and adapted to be moved two steps, one manually controlled to release both the train and controlling-lever, and the other controlled by the train in running, substantially as described. 41st. In a non-interference signal-box, a signalling-train, a locking-lever for it, a non-interference magnet and its armature, and a shunt-lever which controls the transmission of the signal, said locking-lever normally locking both the shunt-lever and the train, and adapted to be moved two steps, one manually controlled to release both the train and the shunt-lever, and the other controlled by the train in running, substantially as described. 42nd. In a non-interference signal-box, a signalling-train, a locking-lever for it, a non-interference magnet and its armature, and a controlling-lever which controls the transmission of the signal, said locking lever normally locking both the controlling lever and armature, and adapted to be moved two steps, one manually controlled to release both the train and controlling-lever, and the other controlled by the train in running after said train has run a longer time than the longest closure in any signal at the beginning of a round of the box-number, substantially as described. 43rd. In a non-interference signal-box, a signalling-train, a locking-lever for it, a non-interference magnet and its armature, and a shunt-lever which controls the transmission of the signal, said locking-lever normally locking both the shunt-lever and the train and adapted to move two steps, one manually controlled to release both the train and shunt-lever, and the other controlled by the train in running after said train has run a longer time than the longest closure in any signal at the beginning of a round of a box-number, substantially as described. 44th. The combination in an electrical signalling apparatus, of a signal-wheel, and contacts therefor, actuating mechanism for said wheel, a non-interference magnet in the main-line, its armature, pivoted to the frame, and a locking-lever for the train pivoted to said frame but independent of the armature, said locking-lever normally holding the said armature against retraction, a normally open shunt-circuit around said signal-wheel adapted to be closed by the retraction of said armature, and a releasing and restoring connection between the said locking-lever, and said armature, whereby the latter is released on the starting of said mechanism, and thereafter restored and normally held by said locking-lever when the box is at rest, substantially as described. 45th. In a non-interference signal-box, the combination with a signalling-train, a locking-lever, a non-interference magnet, its armature, and armature-carrying lever adapted to be restored when retracted by said locking-lever, substantially as described. 46th. In a non-interference signal box, the combination with a signalling-train, a locking-lever, a non-interference magnet, its armature, and armature-carrying lever adapted to be restored when retracted by said locking-lever, and held in its attracted position by said locking-lever when the latter is in its locking position, substantially as described. 47th. In a non-interference signal-box, a signalling-train, a locking-lever for it, a non-interference magnet and its armature, a controlling-lever governed by the armature which controls the transmission of the signal, said locking-lever when in two different positions engaging and locking the controlling-lever, between which positions the said controlling-lever is unrestrained, substantially as described. 48th. In a non-interference signal-box, a signalling-train, a non-interference magnet, its armature, and armature-carrying lever, combined with a locking lever for the train, made independent of said armature-carrying lever and held alternately by the said armature-carrying lever and by a moving part of the train, according to the condition of the circuit, substantially as described. 49th. In a non-interference signal system, the combination with the motor, of circuit wheel and springs normally maintaining the circuit closed, the locking-lever 17, and notched wheel 13, having a continuous edge or rim 5, the pivoted armature or armature-support and plate 36 carried thereby, against which hook 19 on lever 17 bears when raised while the armature is attracted, whereby said lever 17 is prevented from moving over to the continuous rim of wheel 13, substantially as described. 50th. In a non-interference signal system, the combination with the motor, the circuit-wheel and springs in circuit with the magnet 4, of wheel 13, having notches corresponding in number and arrangement to the teeth on the circuit-wheel, the locking-lever 17 having a pin which co-operates with the notched wheel whereby the lever is raised and lowered, and the short circuiting mechanism controlled by the magnet and the hooked end of lever 17, substantially as described. 51st. The combination with armature 5, its pivoted support and spring 31, the lower end of which bears against said support, of the movable hook 19 adapted to pass behind and under the spring, thus moving the armature toward its magnet substantially as described. 52nd. The combination with armature 5, its pivoted support and spring 31, the lower end of which bears against said support, of the movable hook 19 adapted to pass behind and under the spring thus moving the armature toward its magnet, and a short circuit held closed by the armature in its retracted position but opened by the forward movement thereof, substantially as described. 53rd. The combi-



nation in a non-interference signal system, of a circuit wheel and springs, mechanism for driving the said wheel, wheel 20, driven by the same mechanism, provided with flange 27, and cam 24. the detent-lever with pin 23, co-operating with said flange and cam, notched wheel 13, having continuous rim 15, and short circuiting mechanism, substantially as described. 54th. In a non-interference signal-box, a signalling-train, a non-interference magnet, and its armature, and a controlling lever governed by said armature, which controls the transmission of the signal, combined with a locking-lever for said train which is also governed by said armature, and is adapted to lock the train after the signalling circuit has been closed for a longer time than the longest closure in any signal and a correct signal has been transmitted, substantially as described. 55th. In a successive non-interference signal-box, a signalling-train, a retarded operative device consisting of a signal-wheel moved by the train to operate the circuit for its first time after the train has run a longer time than the longest closure in any signal, and a determining device comprising a controlling-lever, and a non-interference magnet, which acts during said lapse of time to prevent an interfering signal being sent if the normal condition of the circuit is changed during such length of time, combined with a locking-lever for said signalling-train which is under the control of said determining device, whereby the train will be stopped only after the signalling-circuit has been closed for a longer time than the longest closure in any signal, and a correct signal has been transmitted, substantially as described. 56th. The combination in an electric signalling apparatus, of a retarded operative device consisting of a signal-wheel moved by the actuating train to operate the circuit for the first time after the train has run a longer time than the longest closure in any signal, a non-interference magnet in the main line having its armature normally held against retraction, a normally open shunt-circuit around said magnet, adapted to be closed by the retraction of its armature, and a releasing and restoring connection between said mechanism and said armature, whereby the latter is released on the starting of said mechanism and restored at the completion of an ineffectual attempt to give an alarm, substantially as described. 57th. A successive non-interference signal-box containing the following instrumentalities, viz: a windable signalling mechanism, a non-interference magnet, its armature, means for setting a signal, means for retaining the set signal when the line is in use, and signal-controlling mechanism operated by the train in running, and governed by said armature, and constructed and arranged to effect or permit the transmission of the retained signal on a closure in the signalling-circuit of longer duration than the longest closure in any signal, substantially as described. 58th. In a successive non-interference signal-box, a motor, means for operating it, a retarded operative device consisting of a signal-wheel moved by the train to operate the circuit for its first time after the train has run a longer time than the longest closure in any signal, a non-interference magnet, and its armature, and a controlling-lever governed by said armature to set during said lapse of time to retain the set signal, and a restoring device for said controlling-lever which is operated just prior to the beginning of a round of the signal, that the retained signal may be released upon a closure of the signalling-circuit of longer duration than the longest closure in any signal, substantially as described. 59th. The combination with a signal-wheel and actuating-train thereof, of a non-interference magnet in circuit therewith, a mechanical stop normally holding the armature of said magnet in its attracted position, and means for releasing the said armature automatically on the starting of the train, to allow the armature freedom of action during a time longer than the longest closure in any signal, substantially as described.

**No. 57,805. Protecting Metallic Surfaces against Oxidation.**

(*Procédé pour empêcher les surfaces métalliques de s'oxyder.*)

Bernhard Politzer, Vienna, Austria, 15th October, 1897; 6 years. (Filed 18th June, 1896.)

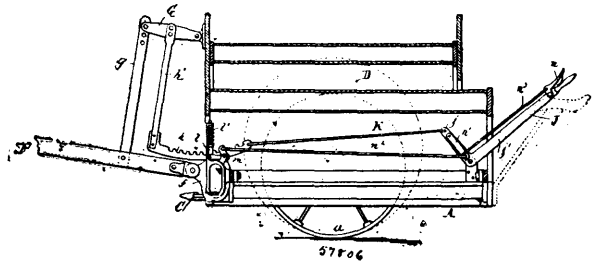
*Claim.*—A process for protecting metallic surfaces against oxidation by chemical and atmospherical action, the said process consisting in first coating the metallic surface with a thin layer of a drying oil or a mixture of drying oils, previously treated with a known siccativ, or oxygen or ozone, and wherein some resin has previously been dissolved, and then subjecting the metallic article thus coated, for a period of from a half to one hour to a temperature between 200° and 400° as set forth.

**No. 57,806. Grain Harvester. (Moissonneuse.)**

The Johnston Harvester Company, Batavia, assignee of Henry J. Case, Owasco, both of New York, U.S.A., 16th October, 1897; 6 years. (Filed 6th October, 1897.)

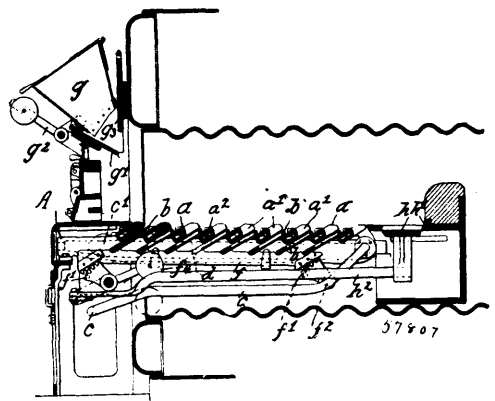
*Claim.*—1st. In a grain harvester, the combination with the main frame, the cutter mechanism, and the draft-pole pivoted to the lower front portion of the main frame, of an upright link pivoted to the draft-pole in front of its pivot, a rock arm pivotally connected with the upper portion of said link and with the main frame, a segment rigidly connected with said rock arm and arranged below the same near the pivot of the draft-pole, and a catch mounted on the lower front portion of the main frame and adapted to hold the movable segment in its adjusted position, substantially as set forth.

2nd. In a grain elevator, the combination with the main frame, the cutter mechanism, the elevating mechanism, and the draft-pole



pivoted to the lower front portion of the main frame, of an upright link pivoted to the draft pole in front of its pivot, a rock arm pivotally connected with the upper portion of said link and with the main frame, a segment rigidly connected with said rock arm and arranged below the same and below the elevating mechanism, a catch mounted on the lower front portion of the main frame and adapted to hold the movable segment in its adjusting position, an adjusting lever arranged on the lower rear portion of the draft frame, and a connection extending from said lever underneath the elevating mechanism to the movable segment, substantially as set forth. 3rd. In a grain harvester, the combination with the main frame, the cutter mechanism and the draft-pole pivoted to the front portion of the main frame, of an upright link pivoted to the pole in front of its pivot, a rock arm pivotally connecting the upper end of said link with the front portion of the main frame, a segment arranged below said rock arm and connected therewith, a hand lever arranged on the rear portion of the main frame, and provided with a front and rear arm, a rod connecting front arm of said lever with said segment, a catch adapted to engage with the segment, a releasing lever having one of its arms engaging with said catch, an intermediate lever pivoted to the front arm of the hand lever, a rod connecting the intermediate lever with the releasing lever, a releasing handle pivoted on the rear arm of the hand lever, and a rod connecting the intermediate lever with said releasing handle, substantially as set forth.

**No. 57,807. Furnace Grate. (Grille de fournaise.)**

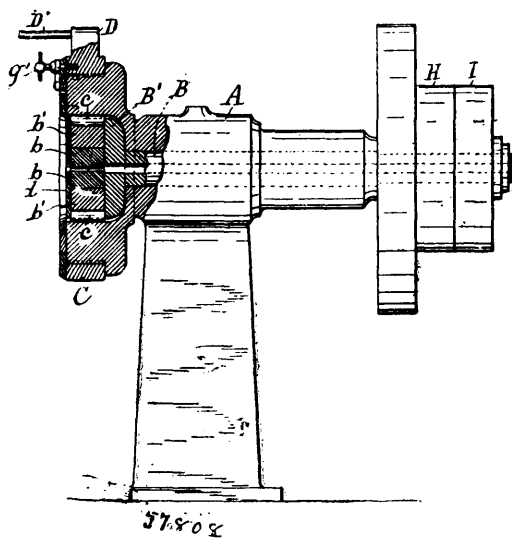


Fritz Franz Maier and Sigmund Kaintz, both of Vienna. Lower Austria, Empire of Austria, 16th October, 1897; 6 years. (Filed 23rd August, 1897.)

*Claim.*—1st. In furnaces comprising a fixed step-grate and a movable sliding grate, each of the said bars being composed of a tube  $a^2$  provided with ribs  $a^1$  and being in all parts parallel to the slides  $b$  movably arranged between the same, whereby the possibility is afforded to give the said steps or bars of the fixed grate the smallest possible cross section whilst the slides of the movable grate can receive the greatest possible cross section, and in every position of the latter a uniform quantity of air is allowed to pass between the steps, substantially as and for the purpose set forth. 2nd. In furnaces comprising a fixed step-grate and a movable sliding grate, a grate-support composed of two longitudinal tubes  $d$ , divided into compartments by the partitions  $d'$  and of the grate-steps  $a$ , said grate-support receiving the cooling medium which is introduced into the support at the end of the same submitted to the highest degree of heating, whereupon the cooling medium is caused to flow in a direction opposite to that of the draught of the fire in the furnace, alternately from one longitudinal branch  $A$  through a system of cooling passages  $a^2$ , of the step-bars  $a$  into the other longitudinal branch, and to circulate in a rapid and vigorous manner, substantially as and for the purpose set forth. 3rd. In furnaces comprising

a fixed step-grate and a movable sliding grate, the arrangement of cooling passages  $a^2$ , in the step-bars  $a$  as close as possible to the fire, with the purpose of obtaining a vigorous cooling of the step-bars themselves as well as also of the slides  $b$  from above, so that the air which is producing the cooling of the latter from below is enabled besides to produce also a cooling action upon the recesses of the step-bars  $a$ , substantially as and for the purpose set forth. 4th. In furnaces comprising a fixed step-grate and a movable sliding grate, a device for imparting motion to the sliding grate, said device consisting of quadrants  $f^1$ , arranged to rotate simultaneously with the toothed sectors  $f^2$ , the supporting bars  $f$  with the slides  $b$  resting upon said quadrants  $f^1$  and being kept in suspension by a counterweight, substantially as and for the purpose set forth. 5th. In furnaces comprising a fixed step-grate and a movable sliding grate, a feeding arrangement consisting of a charging hopper  $g$  provided with a movable and adjustable bottom  $g^1$  and with a rear-plate  $g^2$  capable of being raised and lowered, substantially as and for the purpose set forth. 6th. In furnaces comprising a fixed step-grate and a movable sliding grate, an arrangement having for purpose to obtain a uniform combustion of the fuel throughout the whole width of the fire grate, this arrangement being characterized by side flanges  $a^x$  provided with openings  $s$  and arranged laterally at the longitudinal supporting branches  $A$ , the latter being adapted to fit in their shape the walls of the boiler, substantially as and for the purpose set forth. 7th. In furnaces comprising a fixed step-grate and a movable sliding grate, for the purpose of obtaining an easy removal and exchange of the separate grate-slides and grate-steps, the arrangement of the quadrant pieces  $f^1$  provided with rounded off ends  $f^2$ , said quadrant pieces, upon their having been tilted back, permit the free removal of the grate-slides  $b$  and the unscrewing of the screws  $a^1$  at the grate-steps  $a$ , substantially as and for the purpose set forth.

**No. 57,808. Swaging Machine. (Machine à étamper.)**

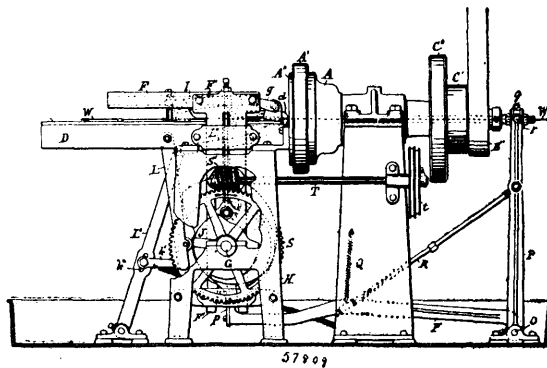


The Morse-Keefer Cycle Supply Co., assignee of Arthur Jacob Morse, both of Salisbury, Connecticut, U.S.A., 16th October, 1897; 6 years. (Filed 10th September, 1897.)

*Claim.*—1st. In a swaging machine, the combination with the stationary cylindrical shell, of a circular series of cams movable radially in grooves in said shell, an adjustable ring mounted on the shell and provided with a series of inclined faces to engage the cams, a stationary face plate to retain the cams in their grooves, an adjustable face plate provided with tangential slots, pins projecting from the cams and entering the slots, a rotary shaft carrying a head with a groove and dies and die-blocks in the groove, as set forth. 2nd. In a swaging machine, the combination with the stationary cylindrical shell, of a circular series of cams movable radially in grooves in said shell, an adjustable ring mounted on the shell and provided with a series of inclined faces to engage the cams, a stationary face-plate to retain the cams in their grooves, an adjustable face-plate provided with tangential slots, pins projecting from the cams and entering the slots, a connection between the adjustable face plate and the adjustable ring, means carried by the said ring for moving the same, a rotary shaft carrying a head with a groove and dies and die blocks in the groove adapted to be operated by the cams, as set forth. 3rd. In a swaging machine, the combination with the stationary cylindrical shell, of a circular series of cams movable radially in grooves in said shell, an adjustable ring mounted on the shell and provided with a series of inclined faces to engage the cams,

a pair of stationary concentric face-plates to retain the cams, a circular adjustable face-plate between the stationary plates, said adjustable plate having tangential bearing surfaces, pins projecting from the cams and engaging the said bearing surfaces, a connection between the adjustable plate and the adjustable ring, means on the ring for turning the same, a rotary cylindrical shaft carrying a head provided with a groove, dies and die-blocks in the groove, rollers in the end of the die-blocks to engage the cams, and a plate covering the groove and secured to the head, as and for the purpose described.

**No. 57,809. Swaging Machine. (Machine à étamper.)**



The Morse-Keefer Cycle Supply Co., assignee of Arthur Jacob Morse, both of Salisbury, Connecticut, U.S.A., 16th October, 1897; 6 years. (Filed 10th September, 1897.)

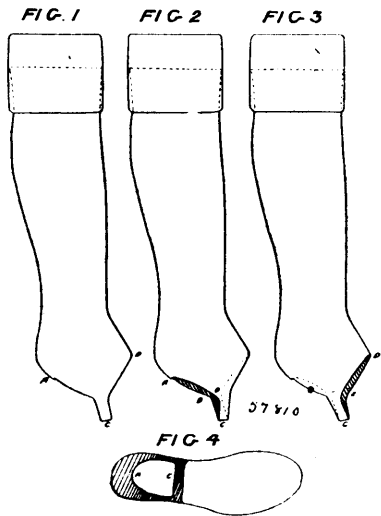
*Claim.*—1st. In a swaging apparatus, the combination with a rotary swaging machine of the class herein specified, of a horizontal shaft, a guideway extending from the swaging head parallel with the axis of the driving shaft, a carriage in the guideway to travel along the same, a cam on the horizontal shaft to move the carriage, grippers on the carriage to grip the work, a spring to raise one of the grippers, means to depress the gripper, a cutter mounted on the said carriage, and a connection between the second cam on the cam shaft, and the grooved bar  $F$ , to depress the gripper and cutter to operate both simultaneously, as set forth. 2nd. In a swaging apparatus, the combination with a rotary swaging machine of the class herein specified, of a horizontal shaft, a guideway extending from the swaging head parallel with the axis of the driving shaft, a carriage in the guideway to travel along the same, a cam on the horizontal shaft to move the carriage, grippers on the carriage, a spring to raise one of the grippers, a cam to depress the same, an arm on the cam shaft provided with a roller, a horizontal bar containing a groove for the roller to travel in, a lever to operate the cutter also mounted on the carriage, a roller carried on one end to travel in the said groove, and an upright plate secured to the grooved bar and engaging the second cam on the cam shaft, as set forth. 3rd. In a swaging apparatus, a rotary swaging head carrying a pair of dies, a guideway secured to and extending from the said head, a carriage travelling in the guideway, a guide for the work on the carriage, a socket at one end thereof, a vertical bolt in the socket provided with a passage for the work, a spring in the socket below the bolt, a lever pivoted intermediate its length to the carriage, a set screw passing through one end and engaging the vertical bolt, a roller on the opposite end of the lever, a grooved horizontal bar to form a guide for the roller to travel in, and suitable means to raise the grooved bar, as set forth. 4th. In a swaging apparatus, a rotary swaging head having a groove therein containing a pair of dies, a pair of followers and a pair of wedges, a tube extending longitudinally through the driving shaft and secured at one end to the wedges, a lever fulcrumed on the base of the machine and connected to one end of the said tube by a universal joint, a lever extending from the same fulcrum horizontally, an adjustable rod extending diagonally between the two levers to change the angle between them, a shaft carrying a worm gear, and a cam, a shoe on the end of the lever engaging the cam, and a spring to raise the lever, as set forth.

**No. 57,810. Stocking. (Bas.)**

Alfred Wagner, St. Catharines, Ontario, Canada, 16th October, 1897; 6 years. (Filed 5th October, 1897.)

*Claim.*—1st. The knitting or construction of the heel of the said stocking, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the said heel, with the swelling front of the said stocking, knitted or made so as to cover or protect

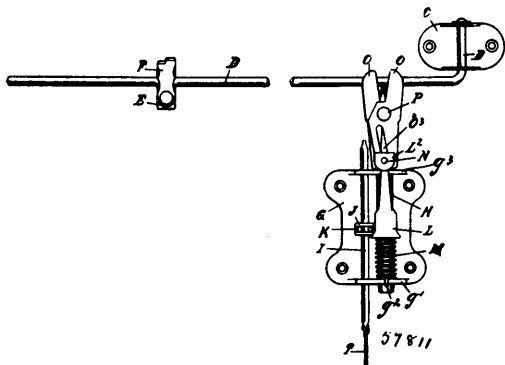
the instep of the foot and the strip or piece C passing under the hollow of the foot and knitted with and forming part of the said



stocking, substantially as and for the purpose hereinbefore set forth.

**No. 57,811. Combined Door Holder and Lock.**

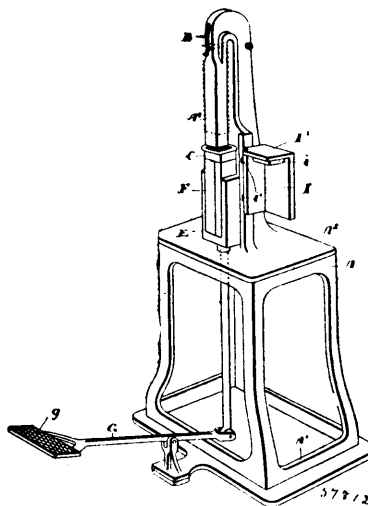
(Arrête-portes et serrure.)



William H. Murray, Tavistock, Ontario, Canada, 16th October, 1897; 6 years. (Filed 2nd March, 1897.)

*Claim.*—1st. A combined door holder and lock, consisting of the pivotal clamps O, O, attached to the door, and each formed with an elongated slot O<sup>2</sup>, and a flange O<sup>1</sup>, in which an opening O<sup>2</sup> is formed, in combination with the pivotal rod D attached to the door case or other suitable support, the bolt N, and means for supporting and operating the latter, substantially as and for the purpose set forth. 2nd. A combined door holder and lock, consisting of the pivotal clamps O, O, attached to the door and the pivotal rod D, in combination with the buffer case E, buffer e<sup>1</sup>, and hasp F, said rod D and case E being attached to the door case or other suitable support, substantially as and for the purpose set forth. 3rd. A combined door holder and lock, consisting of the pivotal clamps O, O, attached to the door, and the pivotal rod D secured to the door case or other suitable support, in combination with the spring plate R, spring R<sup>1</sup>, plate S, in which an elongated slot S<sup>1</sup> is formed, and suitable means for securing these devices to the door, substantially as and for the purpose set forth. 4th. A combined door holder and lock, consisting of the pivotal clamps O, O, each formed with an elongated slot O<sup>2</sup>, and a flange O<sup>1</sup>, in which an opening O<sup>2</sup> is formed, the pivotal rod D, and means for supporting said clamps and said rod in combination with the pin N, the plate L, post H, arm J, spring M, bar I, and bracket G, substantially as and for the purpose set forth. 5th. A combined door holder and lock, consisting of the pivotal clamps O, O, each formed with an elongated slot O<sup>2</sup>, and a flange O<sup>1</sup>, in which an opening O<sup>2</sup> is formed, the pivot bolt P, the pivotal rod D, and the bracket C, in combination with the pin N, the plate L, provided with the angular end L<sup>1</sup>, post H, arm J, spring M, bar I, and bracket G, substantially as and for the purposes set forth.

**No. 57,812. Packing Machine. (Machine à emballer.)**

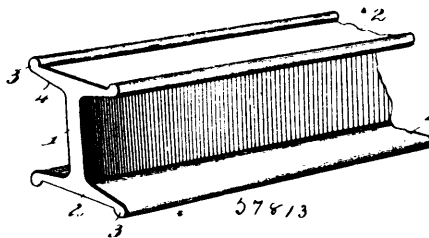


Alexander Hastings Canning, Toronto, Ontario, Canada, 16th October, 1897; 6 years. (Filed 8th October, 1897.)

*Claim.*—1st. In a tea packing machine, in combination, the frame, the standard, the plunger depending from the top thereof a short distance from the main body, of the standard, the holder, means for operating same, the package, the case fitting within the package in the holder, and means for imparting an upward movement to the holder, as and for the purpose specified. 2nd. In a tea packing machine, in combination, the frame the standard, the plunger depending from the top thereof a short distance from the main body of the standard, the holder, means for operating the same, the package, the case fitting within the package in the holder, the rod secured in the bottom of the holder and extending from the bed plate of the standard, and the lever for operating the same pivotally connected to the bottom of the rod, as and for the purposes specified. 3rd. In a tea packing machine, in combination, the frame, the standard, the plunger depending from the top thereof a short distance from the main body of the standard, the holder, means for operating same, the package, the case fitting within the package in the holder, and a gauge having the top and sides designed to close the open top and side of the holder, as and for the purpose specified. 4th. In a tea packing machine, in combination, the frame, the standard, the plunger depending from the top thereof a short distance from the main body of the standard, the holder, means for operating same, the package, the case fitting within the package in the holder, and a gauge comprising two sides and a top and block depending from the top, hinged to the standard and designed to be swung so that the block enters the open top of the holder and the side closes the open side when the holder is raised, as and for the purpose specified. 5th. In a tea packing machine, in combination, the frame, the standard, the stationary plunger, the holder, means for operating the same, the package, the case within the package in the holder and means for imparting an upward movement to the holder, as and for the purpose specified.

**No. 57,813. Building Strut or Column.**

(Elai ou colonne.)



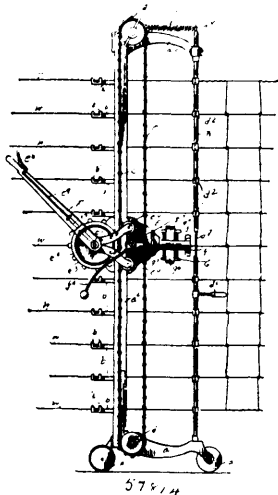
Charles M. Horton, Duluth, Minnesota, U.S.A., 16th October, 1897; 6 years. (Filed 9th October, 1897.)

*Claim.*—1st. A building strut or column, having a flat web portion provided at each of its side edges with a longitudinal flange projecting at each side thereof and disposed at right angles thereto, said flange portions having rounded beads at their side edges projected beyond the outer faces of the flanges, substantially as described. 2nd. A building strut or column, having a flat web portion provided at each of its side edges with a longitudinal flange projecting at each side thereof and disposed at right angles thereto,

the outer faces of the respective flanges lying in parallel planes, and said flanges being provided at their side edges with longitudinally rounded beads projected beyond the plane of the outer faces, and said flanges having inclined inner faces meeting the opposite side faces of the web and merging into the rounded beads, substantially as described.

**No. 57,814. Wire Fence Machine.**

(Machine à clôtures en fil de fer.)

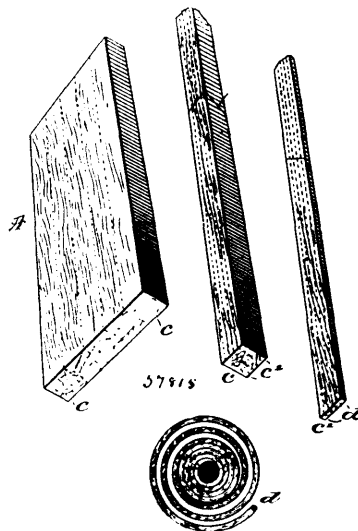


William Forester Dobbs, Windham, Ohio, U.S.A., 16th October 1897; 6 years. (Filed 9th October, 1897.)

*Claim.*—1st. A wire fence machine comprising a frame having uprights, sprocket wheels on said frame, a chain engaging said sprocket wheels, a carriage adjustable on said frame, a lug projecting from said carriage to which said chain is connected, a wheel on said carriage engaging said chain, means for moving said wheel, and a twister mounted in said carriage, as set forth. 2nd. A wire fence machine comprising a frame having uprights, sprocket wheels on said frame, a chain engaging said sprocket wheels, a carriage adjustable on said frame, a lug projecting from said carriage to which said chain is connected, a wheel on said carriage engaging said chain, a ratchet wheel, an operating handle carrying a pawl engaging said ratchet wheel, and a twister mounted in said carriage, substantially as set forth. 3rd. A wire fence machine comprising a frame having uprights, sprocket wheels on said frame, a chain engaging said sprocket wheels, a carriage adjustable on said frame, a lug projecting from said carriage to which said chain is connected, a wheel on said carriage engaging said chain, means for moving said wheel, and a twister mounted in said carriage, as set forth. 4th. The combination with the frame, the sprocket wheels and the chain engaging said wheels, of the carriage adjustable on said frame, and to which said chain is connected, the wheel on said carriage engaging said sprocket chain, the operating handle, the twister having a shaft fitted in said carriage, an operating shaft, and bevel gear wheels on said shafts, substantially as set forth. 5th. The combination with the frame, the sprocket wheels and the chain engaging said wheels, of the carriage adjustable on said frame, and to which said chain is connected, the wheel on said carriage engaging said sprocket chain, the operating handle, the twister having a shaft fitted in said carriage, an operating shaft, and the operating shaft engaging said twister shaft, as set forth. 6th. The combination with the wheeled truck, of the uprights removably secured thereto, the arm between the upper ends of said uprights, the sprocket chain and wheels therefor, the carriage vertically adjustable on said uprights, the operating sprocket wheel mounted on said carriage and engaging said chain, the arms having lazy wheels holding said chain against said operating wheel, the operating handle for moving said latter wheel, the twister having a shaft in said carriage, and means for operating the same, as set forth. 7th. A fence machine having an upright frame and a vertically adjustable carriage, a twister having a shaft provided with longitudinal slots in its sides, said slots tapering from their centres to the ends, a spool-holder formed on said shaft, a twister head on one side of said shaft and guiding jaws on the opposite end thereof, an operating shaft, a bevel gear wheel mounted on each of said latter shafts and meshing with each other, and an operating handle for said operating shaft, substantially as set forth. 8th. The combination of the frame formed of two upright parallel bars, the vertically adjustable carriage, and the twister, of the series of arms secured to one of said bars and having slotted ends to engage the fence wires, and the series of arms secured to the other one of said bars and having oppositely slotted lugs, as and for the purposes set forth. 9th. The combination with the upright frame, the vertically adjustable carriage, and the twister, of the pivoted rod, the gripping arms extending therefrom having slotted ends, the spring acting on said rod, and the bar parallel with said rod, substantially as set forth.

**No. 57,815. Ribbon Peg Strip.**

(Bandelette de chevilles pour chaussures.)

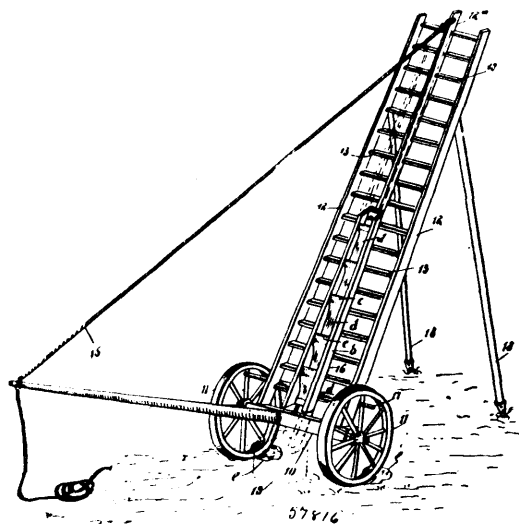


James Leggett, Montreal, Quebec, Canada, 16th October, 1897; 6 years. (Filed 9th October, 1897.)

*Claim.*—1st. A peg-ribbon of indefinite length, the same presenting in cross-section the shape desired for the peg in cross-section, the fibres of the peg ribbon running in the direction of the length of the ribbon, substantially as described. 2nd. A coil of peg-ribbon of indefinite length, the same presenting in cross section the shape desired for the peg in cross section, the fibres of the peg-ribbon running in the direction of the length of the ribbon, substantially as described.

**No. 57,816. Ladder and Chute for Fruit Gathering.**

(Echelle pour cueillir les fruits.)

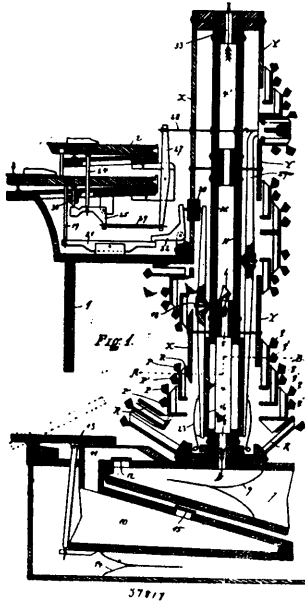


George Knox Davis, Lewiston, Maine, U.S.A., 16th October, 1897; 6 years. (Filed 11th October, 1897.)

*Claim.*—1st. A fruit gatherer having a support, a trough running longitudinally on the support and having an open front side, a series of cross bars running across the trough at the open front side thereof, and a flexible apron secured to each cross bar and hanging loosely therefrom, the free portions of the aprons lying unrestrainedly on the bottom of the trough, substantially as described. 2nd. A fruit gathering apparatus having a mounted axle, a boom or tongue fixed to the axle, a ladder also fixed to the axle and projecting at an angle to the boom or tongue, the ladder being formed of three parallel rails and transverse rungs running between the rails, and a fruit chute running centrally along the ladder and fixed to the intermediate rail thereof, substantially as described. 3rd. A fruit gatherer having a ladder formed of three parallel rails and rungs running between the rails, and a fruit chute fixed to the in

intermediate rail and running along the same, substantially as described. 4th. A fruit gatherer having a mounted axle, a boom or tongue fixed to the axle, a ladder also fixed to the axle and projecting at an angle to the boom or tongue, the ladder being formed of three parallel rails with rungs running between them, a fruit conductor running along the intermediate rail and carried thereby, a stay rigged between the outer end of the boom or tongue and the outer end of the intermediate rail of the ladder, and two props respectively pivoted to the side rails of the ladder and serving to hold the ladder in an upright position, substantially as described.

**No. 57,817. Reed Organ. (Orgue.)**



Freeman D. Dexter, West Winfield, New York, U.S.A., 18th October, 1897; 6 years. (Filed 10th September, 1897.)

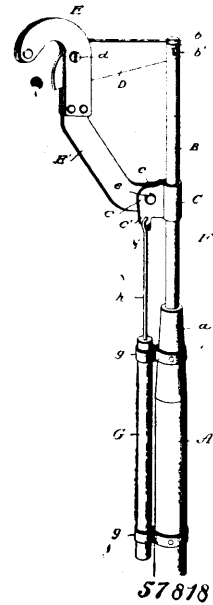
*Claim.*—1st. The combination in an organ of a divided chamber between the valve-boards, and an automatic valve between the parts, substantially as set forth. 2nd. In a reed organ, a valve-board having valve-openings, a reed-board and reeds, intermediate valve-cells, an inwardly-opening valve located in the cell, a valve-lever parallel with the valve-board and fulcrumed thereon, and means for operating the lever, substantially as set forth. 3rd. The combination in a reed organ of a valve-board having valve-openings, a reed-board with reed-cells and reeds, valve-cells between the valve-board and reed-board, an inwardly-opening valve and valve-lever parallel with the valve-board, and both located within the valve-cell and key, and connecting mechanism for operating the valves, substantially as set forth. 4th. The combination in a reed organ of the valve-boards M, N, having valve-openings and an intermediate exhaust-chamber, reed-boards X, Y, and valve-cells between the valve-boards and their adjacent reed-boards respectively, inwardly-opening valves and valve-levers fulcrumed on the valve-boards, both located within the valve-cells and keys, and connections extending to the several valve-levers, substantially as set forth. 5th. In a reed organ, a subdivided reed-cell, the subdivisions having openings on the side and end of the cell respectively, in combination with mutes adapted to close each set of openings independently, and reeds in each subdivision. 6th. A valve-lever, having a pointed projection constituting a projecting fulcrum, a fixed fulcrum-pit, an opening in the lever, and pointed projection to receive the pin and permit the motion of the lever, and a valve on the lever in a plane substantially with the fulcrum, combined substantially as set forth.

**No. 57,818. Pruning Implement. (Sécateur.)**

Darius C. Baker, Sangetuck, Michigan, U.S.A., 18th October, 1897; 6 years. (Filed 17th September, 1897.)

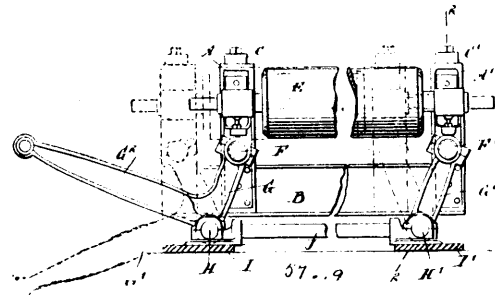
*Claim.*—1st. A pruning implement, consisting of a handle and a rod, a blade pivoted to the upper end of the rod, a slide which embraces the rod and is provided with projecting ears, a hook section made up of a pair of similarly-shaped end-plates between which the blade is pivoted, and a flat member or plate E', the ends of which project at an angle with its central portion, the lower portion of the hook sections overlying the upper end of the plate E' and being rigidly secured thereto by rivets, the lower end of said member being positioned between the ears of the slide and pivotally secured thereto, substantially as shown and for the purpose set forth. 2nd. In a pruning implement, the combination with the

handle and rod, a blade pivoted to the upper end of the rod, a hook held in sliding engagement therewith and pivotally connected to



the blade, a slide mounted on the rod and provided with projecting ears between which the lower end of the hook is pivoted, and a depending lug; together with a tube, the upper end of which is partially closed, bands for connecting the tube to the handle so that it will be parallel therewith, a helical spring positioned within the tube, and a rod engaging with the spring, and the end of the slide, substantially as shown and for the purpose set forth.

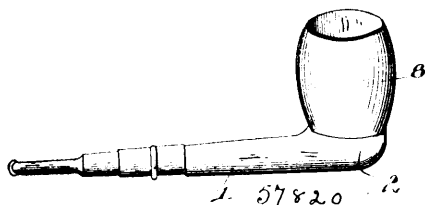
**No. 57,819. Shake-Frame for Fourdrinier Paper Machine. (Cadre à secousse pour machines Fourdrinier à fabriquer le papier.)**



Thomas H. Savery, Wilmington, Delaware, U.S.A., 18th October 1897; 6 years. (Filed 17th September, 1897.)

*Claim.*—1st. In a Fourdrinier paper-machine, the combination with a support, and the shake-rails, of an approximately U-shaped frame, to the ends of the vertical members of which the shake-rails are pivoted, a breast-roller mounted on the front face of the frame, links pivoted to a support and to the frame in a plane below the breast-roller, and means for swinging the links on their pivots to oscillate or vibrate the frame, substantially as described. 2nd. In a Fourdrinier paper-machine, the combination with a support, and the shake-rails, of an approximately U-shaped frame, to the upper ends of the vertical members of which the shake-rails are pivoted, a breast-roller mounted on the front face of the frame, links pivoted to a support and to the frame in a plane below the breast-roller, and means connected with the frame below the breast-roller for swinging the links on their pivots and thereby vibrate the frame substantially as described. 3rd. In a Fourdrinier paper-machine, the combination with a support, and the shake-rails, of an approximately U-shaped frame, to the upper ends of the vertical members of which the shake-rails are pivoted, a breast-roller mounted on the front faces of the vertical members of the frame, and links pivoted to a support and to the frame in a plane below the breast-roller, one of the links being formed with an arm forming with the link a bell-crank lever, by means of which the frame is vibrated, substantially as described.

**No. 57,820. Tobacco Pipe. (Pipe à tabac.)**

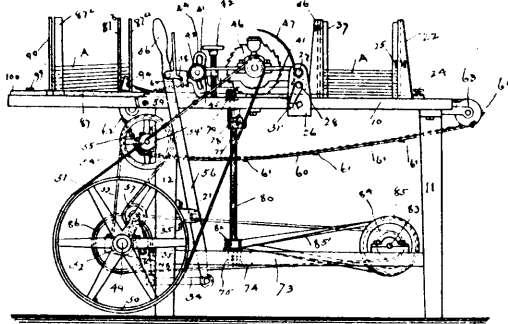


Philip Brown, jr., Haverstraw, New York, U.S.A., 16th October, 1897; 6 years. (Filed 23rd September, 1897.)

*Claim.*—1st. A pipe having a stem the shank of which is provided with a cup projecting from its upper surface and adapted to receive a cigar, a hollow plug adapted for insertion in said cup and adapted to receive and hold a cigarette, and a pipe bowl having at its lower end a socket to receive and fit on the cup over said plug, substantially as set forth. 2nd. A pipe the stem of which is provided with a shank having a cup projecting from its upper surface and adapted to receive a cigar, a hollow plug adapted for insertion in said cup and adapted to receive a cigarette, and a pipe bowl having at its lower part a socket to receive and fit on the cup over said plug, said bowl having an interior shoulder to engage said plug and hold the same in place, substantially as set forth. 3rd. A pipe the stem of which is provided with a shank having a cup projecting from its upper surface and adapted to receive a cigar, said cup being provided with exterior screw-threads, a hollow plug fitting in said cup and adapted to receive and hold a cigarette, and a pipe bowl having at its lower end a screw-threaded socket to receive and fit on the cup over the plug and provided with an interior shoulder to engage the plug and hold the same in place, substantially as set forth. 4th. In a pipe, the stem having an externally-threaded cup projecting from its upper surface and adapted to receive a cigar, a hollow plug insertible in the cup, and a bowl screwed to said cup and flanged to engage with, and confine, the plug in place therein, as and for the purposes described.

**No. 57,821. Grooving and Tongueing Machine.**

*(Machine à languette et rainure.)*



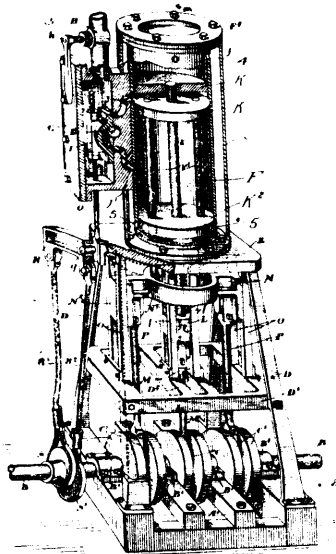
John Boyden Chace, Orange, Mass., U.S.A., 16th October, 1897; 6 years. (Filed 25th September, 1897.)

*Claim.*—1st. The combination with the bed-plate, and a hopper having a transverse slot at the lower portion of its front, of the brackets 26, 26, mounted on the bed-plate, the shafts 28, 28<sup>1</sup>, journaled in the brackets and having the screw-threads 29 and 30, handles for rotating the shafts, the guides 32 and 33, working on the screw-threads, extending through the slot in the hopper and having the members 36 and 37 extending upward in the hopper, and adjustable laterally with the guides, and the presser-plates 38 and 39 secured to the guides, as described. 2nd. In a grooving or similar machine, the conjunction with a bed-plate having a longitudinal slot, a blank-receiving hopper at one end, a rotary cutting mechanism in line with said hopper, and a feed-chain working through the slot to engage the blanks in the hopper, carry them through the cutter mechanism and deposit them in a receiving hopper, of the receiving hopper, a lifting device comprising the plate 91 pivoted to the guide-plate 37, and provided with projection 94 and the finger 93 secured at its upper end and having the cam-surfaced projection 95, said plate 91 having also the stop 97 and spring 98, a piling device comprising the guide-plate 87 having the slotted extension 88, the thumb-screw 90 for securing the guide-plate, and means for operating the piling and lifting devices, as described. 3rd. The combination with the bed-plate 10, the chain 60 and driving mechanism thereof, the brackets 26, 26, the shafts 28, 28<sup>1</sup>, having the screw-threads 29, 30, the guides 32, 33, mounted on said shafts, the shaft 27, the cutter frame pivotally mounted on shaft 27, the cutter-shaft 45 journaled in the frame, of the cutter-head 79 mounted on shaft 80, means for rotating said shaft,

the guides 87 provided with the pivoted plate 91 having the cam 92 and spring-finger 93. 4th. The combination with the bed-plate 10, the chain 60 and driving mechanism thereof, the brackets 26, 26, the shafts 28, 28<sup>1</sup>, having the screw-threads 29, 30, the guides 32, 33, mounted on said shafts, and provided with the presser-springs 38, 39, the spring-pressed bar 70 and the guides for the same, the shaft 27, the cutter frame 41 pivotally mounted on shaft 27, and the cutter-shaft 45 provided with cutters and journaled in the frame, of the cutter head 79 mounted on the shaft 80, means for revolving said shaft, the guides 87 provided with the springs 98, the plate 91 having stop 97, the cam 92 and spring-finger 93, substantially as herein shown and described.

**No. 57,822. Reciprocating Engine.**

*(Machine alternative.)*



Isaac Milton House and Charles Tingey, both of Gravenhurst, Ontario, Canada, 18th October, 1897; 6 years. (Filed 9th October, 1897.)

*Claim.*—1st. A reciprocating engine, comprising a cylinder provided with inlet and exhaust ports, suitable valves for same, and upper, intermediate and lower pistons, the upper piston being provided with a central piston rod, which extends through and has free movement in the intermediate piston, the intermediate piston provided with two piston rods, one on each side of the central piston rod and extending through and having free movement in the lower piston, and suitable connections between the ends of the piston rods and the crank shaft, as and for the purpose specified. 2nd. In a reciprocating engine, in combination, a cylinder provided with inlet and exhaust ports, a slide valve for same suitably operated, and upper, lower and intermediate pistons, the upper piston being provided with a central piston rod, which extends through and has free movement in the intermediate piston, the intermediate piston provided with two piston rods, one on each side of the central piston rod and extending through and having free movement in the lower piston, a central crank wheel on the main shaft, and crank wheels, one on each side, suitable guideways for the lower end of the upper piston rod, and rod connecting the lower end of the upper piston rod with the crank wheel, a cross head having longitudinal movements in suitable guideways and connected to the lower ends of the piston rods of the intermediate piston, and rods connecting each side of the cross head to the side crank wheels, as and for the purpose specified. 3rd. In a reciprocating engine, the combination with the cylinder provided with suitable heads and inlet and exhaust ports and upper intermediate and lower pistons, of an outer jacket and openings at the top and bottom of the cylinder within the head communicating through the cylinder with the space between the outer jacket and cylinder, as and for the purpose specified. 4th. A reciprocating engine comprising a cylinder provided with inlet and exhaust ports, suitable valves, and upper, intermediate and lower pistons, the upper and intermediate pistons co-acting in alternation with the co-action of the intermediate and lower pistons, as and for the purpose specified.

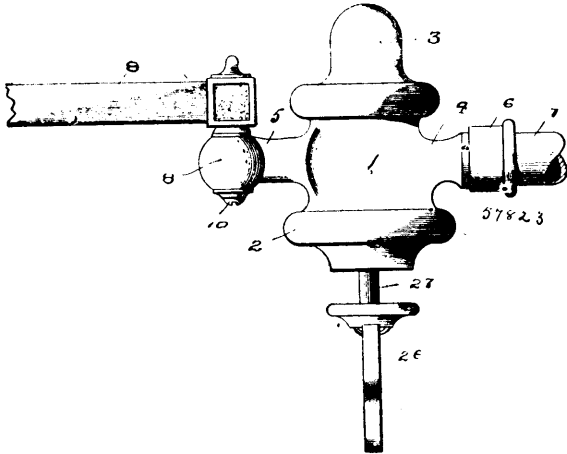
**No. 57,823. Gas or Vapour Cock.**

*(Robinet à gaz ou vapeur.)*

Orlando F. Conibe, Charlestown, Massachusetts, U.S.A., 19th October, 1897; 6 years. (Filed 18th June, 1897.)

*Claim.*—1st. In a gas or vapour cock, the combination of a case, a valve in said case controlling the passage of gas therethrough and

provided with a slot or groove, and a key provided with a stem having a bit or projection normally arranged below said valve and

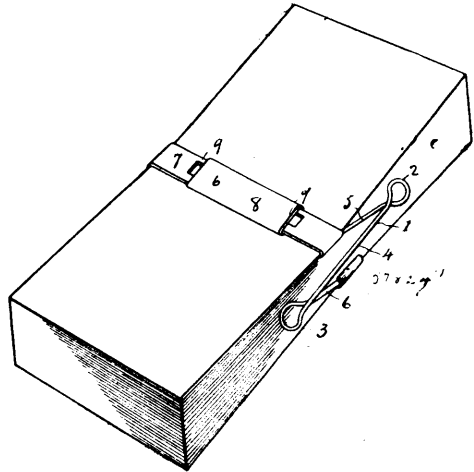


adapted to be pushed up so as to bring its bit into engagement with the valve, groove or slot in order that said valve may be operated, substantially as described. 2nd. In a gas or vapour cock, the combination of a case having inlet and outlet ports, an oscillatory valve in said case and provided with a groove or slot, and a key having a stem provided with a bit or projection adapted to engage with said groove or slot to operate the said oscillatory valve, substantially as described. 3rd. In a gas or vapour cock, the combination of a case having inlet and outlet ports, a valve in said case provided with a groove in the lower end thereof, means to limit the rotary movement of said valve, and a key having a stem provided with a bit adapted to be inserted into the said valve groove so as to operate said valve, substantially as described. 4th. In a gas or vapour cock, the combination of a case having inlet or outlet ports, a rotary valve in said case provided with a groove in the lower end thereof, a washer or a diaphragm between said valve and lower end of the case and provided with a slot, and a key having a stem provided with a bit or projection adapted to be passed up through said slot and engage with the said groove in the valve to operate the latter, and said washer holding the stem in upraised position when the valve is open, substantially as described. 5th. In a gas or vapour cock, the combination of a case, a cone-shaped valve in said case having a limited upward movement and provided with a passage extending therethrough and a groove in the bottom thereof, a washer or diaphragm between the lower portion of the case and the plug valve, and having a key-hole-shaped slot, and a key provided with a stem having a bit or projection adapted to be inserted through said slot and engaged with the said groove of the valve, whereby said valve may be operated and maintained in an open position by the said stem when resting upon the upper surface of the washer, substantially as described. 6th. In a gas or vapour cock, the combination of a case having inlet and outlet ports, a cone-shaped plug valve in said case and provided with a central chamber adapted to be brought into coincidence with said ports, and a groove in its lower end, means to limit the rotary movement of said valve, a washer or diaphragm provided with a key-hole-shaped slot and located below the base of said valve, and a key having a stem provided with a bit or projection adapted to be inserted through said slot and engaged with the said groove in the valve to operate the latter, substantially as described. 7th. In a gas or vapour cock, the combination of a case having inlet and outlet ports, a cone-shaped valve in said case provided with a central chamber and having a groove in its lower end, a washer or diaphragm provided with a key-hole-shaped slot and located below said valve, a key having a stem inserted up through said washer and valve chamber and provided with a bit or projection adapted to be inserted through said key-hole-shaped slot, and engage with the groove in the valve to operate said valve, and means for normally pressing the disengaged stem downwardly so as to force its bit to a position below the said washer or diaphragm, substantially as described. 8th. In a gas or vapour cock, the combination of a case having inlet or outlet ports, a cone-shaped valve located in said case and provided with a central chamber and having in its bottom a groove and a segmental shaped slot, a diaphragm or washer provided with a key-hole-shaped slot, and located beneath said valve, a key having a stem provided with a bit or projection adapted to be inserted through said key-hole-shaped slot and engage with the said groove in the valve to operate said valve, a pin projecting into the segmental slot of the valve and serving to limit the rotary movement thereof, and means to normally press the disengaged key stem down so that its bit will have position below the said washer or diaphragm, substantially as described. 9th. In a gas or vapour cock, the combination of a case having a central portion or body provided with a conical slot or passage, a dome cap closing the upper end of said body portion and provided with a central chamber, a base cap closing the lower end of said body portion and provided with a chamber and a socket, a

conical valve occupying the chamber in said body portion and provided with a groove and a segmental shaped slot in the bottom thereof, a washer or diaphragm provided with a key-hole-shaped slot and having position between said valve and base cap, a pin projecting from said washer and occupying the segmental slot of the valve to limit the rotary movement of said valve, a key having a stem provided with a bit or projection adapted to be passed up through said key-hole-shaped slot and engage with the groove in the valve to operate said valve, and a spring to normally force the key stem down when said stem is not in use so as to bring the bit thereof to a position below the said washer or diaphragm, substantially as described.

**No. 57,824. Paper File Clasp.**

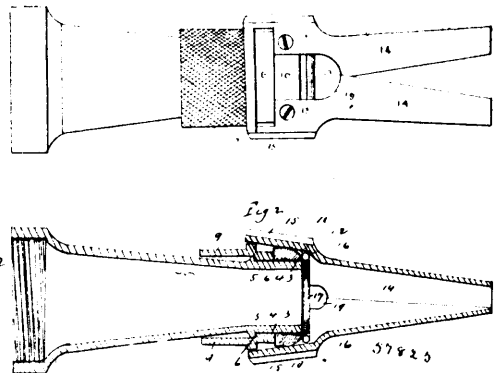
(Appareil pour mettre des papiers en liasse.)



Verrence Munger, Ansonia, Connecticut, U.S.A., 19th October, 1897; 6 years. (Filed 22nd May, 1897.)

*Claim.*—1st. As a new article of manufacture, a paper file clasp comprising the side frames, consisting of the coils 2 and 3, the connecting bars 4, and the yieldable ends 5, and the bands connecting the two. 2nd. As a new article of manufacture, a paper file clasp comprising two side frames consisting of the coils 2 and 3, the connecting bar 4, and the yieldable ends 5, in combination with adjusting cross bands, substantially as shown and described. 3rd. As a new article of manufacture, a paper file clasp consisting of two yieldable side frames, in combination with the adjustable cross bands comprising the sheet metal end pieces 7, the hood 8, partially enclosing said pieces and in which said pieces 7 slidably operate, and means for limiting such sliding movement. 4th. As a new article of manufacture, a paper file clasp comprising two side frames, each consisting of coils 2 and 3, a connecting bar and yieldable end pieces, in combination with adjustable cross bands consisting of end pieces 7, hood 8, all adapted to operate as shown.

**No. 57,825. Hose Nozzle. (Lance de boyaux.)**

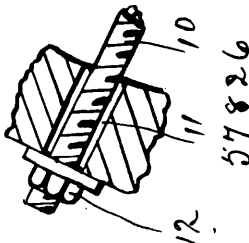


Joseph Askins, Ridgefield, New Jersey, U.S.A., 19th October, 1897; 6 years. (Filed 7th September, 1897.)

*Claim.*—1st. The combination of a nozzle body having a collar, a rotary sleeve having a pair of opposite, laterally projecting cam-ribs and mounted on the nozzle body in juxtaposition to said collar, a plate secured to the nozzle body and holding the sleeve against lateral motion while permitting it to rotate, and opening and closing deflector jaws pivoted to said plate and having tailpieces respectively acted upon by the laterally projecting cam-ribs of the sleeve, substantially as described. 2nd. The combination of a nozzle body, a

rotary sleeve having a pair of opposite, laterally projecting cam-ribs, means for holding the sleeve against lateral motion while permitting it to rotate, and pivoted deflector jaws having tailpieces respectively acted upon by the laterally projecting cam-ribs of the sleeve, substantially as described. 3rd. The combination of a nozzle body having a screw-threaded end and a collar near the screw-threaded end, a rotary sleeve having a pair of opposite, laterally projecting cam-ribs and mounted on the nozzle body between its collar and the screw-threaded part, a nut or plate engaging said screw-threaded part and confining said sleeve in position, and opening and closing deflector jaws pivoted to the nut or plate and having tailpieces respectively acted upon by the laterally projecting cam-ribs of the sleeve, substantially as described. 4th. The combination of a nozzle body, a rotary sleeve having a pair of opposite, laterally projecting cam-ribs and mounted on the nozzle body, a nut or plate secured to the nozzle body and retaining the sleeve in position, and deflector jaws pivoted to the nut or plate, having tailpieces acted upon by the laterally projecting cam-ribs of the sleeve, and provided at their sides with air inlet openings for inducing air currents when the nozzle is in use, substantially as described. 5th. The combination of a nozzle body having a screw-threaded end, a cylindrical bearing and a collar at the rear of said bearing, a sleeve mounted on said cylindrical bearing, resting against said collar and provided with laterally projecting cam-ribs and a rearward cylindrical extension, a nut screwed upon the threaded part of the nozzle and retaining the sleeve in position, a pair of deflector jaws pivoted to the nut and having tailpieces acted upon by the cam-ribs of the sleeve, and a split spring-ring seated in the deflector jaws in advance of their pivot points, substantially as described.

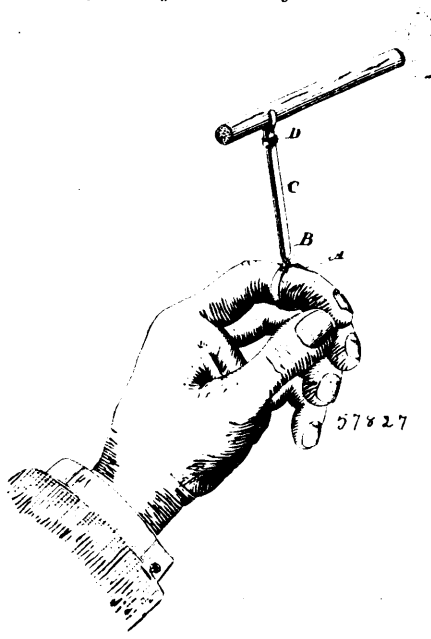
**No. 57,826. Saw. (Scie.)**



Austin Berry, Warden, Quebec, Canada, 19th October, 1897; 6 years. (Filed 24th June, 1897.)

*Claim.*—A saw comprising a frame piece of L-form, a saw blade connected to the end of the off-set arm of said frame piece, an adjustable section pivotally connected to the opposite end of said frame piece and connected to the other end of said saw blade, a regulating device connected between said frame piece and said adjustable section, for the purpose set forth.

**No. 57,827. Cigarette or Cigar Holder. (Porte-cigarettes ou cigares.)**



Etienne Girard, Louisville, Kentucky, U.S.A., 19th October, 1897; 6 years. (Filed 13th September, 1897.)

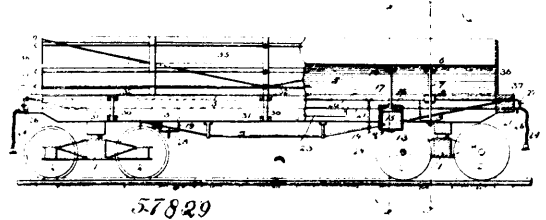
*Claim.*—1st. A cigar or cigarette holder formed of a single piece of material having the finger loop formed at the lower portion thereof, and the upwardly extending spring arms provided with the curved or bent upper portion, as and for the purpose set forth. 2nd. A cigar or cigarette holder constructed from a single piece of material having the finger loop formed at its lower end, the upwardly extending spring arms therefrom having the curved upper ends, and a slidable loop movable on said arms, as and for the purpose set forth. 3rd. As a new article of manufacture, a holder for the purpose described comprising a single piece of material bent around at its lower portion to form a finger loop, the upwardly extending spring arms therefrom having their upper free ends curved to form clamps, and a sliding loop movable on said arms as set forth. 4th. A cigar and cigarette holder formed from a single piece of flat metal having the loop formed at its lower end, the upwardly extending spring arms therefrom having the curved upper portion to form clamps, and a sliding loop movable on said spring arms in the manner and for the purpose described.

**No. 57,828. Artificial Food. (Aliments artificiels.)**

David O'Shea, St. Vincent de Paul, Quebec, Canada, 19th October, 1897; 6 years. (Filed 2nd July, 1897.)

*Claim.*—A composition of dried and pulverized beef, pulverized sugar, pepsin and carbonate of magnesia, substantially in the proportion and for the purposes set forth.

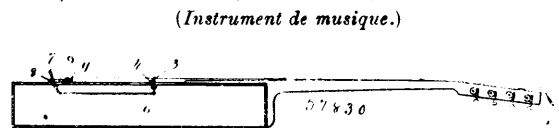
**No. 57,829. Dumping Car. (Char à bascule.)**



William August Smith, Trinidad, Colorado, U.S.A., 19th October, 1897; 6 years. (Filed 13th October, 1897.)

*Claim.*—1st. In a dumping car, the combination with the hinged platform forming the bottom thereof, of the air cylinders, the pistons, the piston-rods pivotally connected with said platforms, the longitudinal and branch compressed air pipes and the stop-cocks, substantially as described. 2nd. In a dumping car, the combination with the longitudinal beams or timbers, the hinged platforms, and the links pivotally connected with said beams and platforms, of the air cylinders, the pistons, the piston-rods pivotally connected with said pistons, and the air pipes provided with stop-cocks, connected with said cylinders, substantially as described. 3rd. In a dumping car, the combination with the longitudinal beams or timbers, the hinged platforms, the guide rods connected therewith provided with stop nuts at their lower ends and formed with holes or apertures and the pins passing through said holes, of the air cylinders, the pistons, the piston-rods pivotally connected with said platforms, the air pipes and the stop-cocks, substantially as described. 4th. In a dumping car, the combination with the longitudinal beams, the hinged platforms, the flanges at the ends thereof, the triangular lugs on the under sides of said platforms, the guide-rods having stop nuts, and formed with holes, the pins engaging with said holes, and the links pivotally connected with said beams and with the platforms, of the air cylinders, the pistons, the piston-rods pivotally connected with the platforms and the compressed air pipes and stop-cocks, substantially as described.

**No. 57,830. Musical Instrument. (Instrument de musique.)**



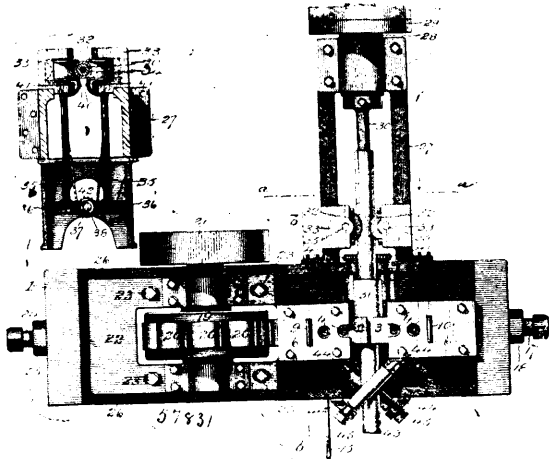
Carl Ernest Brown, Columbus, Ohio, U.S.A., 19th October, 1897; 6 years. (Filed 20th September, 1897.)

*Claim.*—1st. The herein described combination, a frame, suitable strings arranged thereon, a rod having hooks to engage a series of strings, a lever having a connection for operating the rod, and means for locking the lever in its adjusted position, as and for the purpose described. 2nd. The herein described combination with the frame of an instrument, a series of pairs of strings, a rod having connection with one string of each pair, a lever having a connection for operating the rod, and a muffling strip arranged on the rod, as and for the purpose described. 3rd. The herein described combination with the frame of an instrument, a series of pairs of strings, a rod having hooks connecting with one string of each pair, a muffling strip carried by the rod, a lever having connections with the rod and means for securing the lever in its adjusted position, as and for the purpose



describe: 1. 4th. The herein described combination, with the frame of an ordinary guitar and the six strings thereof, of four or five smaller or treble strings arranged parallel with four or five of the first named strings, a pivoted rod having four or five hooks projecting therefrom in such manner as to be brought into contact with the four or five aforesaid treble strings when the rod is swung, an operating lever, a wire or rod for connecting said lever with the said pivoted rod, means for locking said operating lever in one or two positions, and a felt strip, against which the aforesaid treble strings are pressed when the hooks are swinging downward, as shown and described. 5th. The herein described combination, with the frame of a musical instrument, of a series of pairs of strings, the strings of each pair consisting of a string and a smaller string and being of such relative size that they may be tuned one octave apart, as and for the purpose described.

**No. 57,831. Machine for Forming Seamless Tubes.**  
(*Machine pour la fabrication de tubes sans coutûre.*)

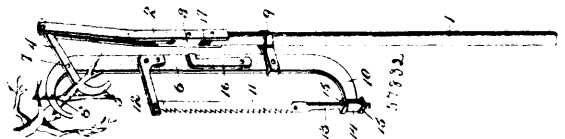


George Joseph Capewell, Hartford, Connecticut, U.S.A., 19th October, 1897; 6 years. (Filed 11th September, 1897.)

*Claim.*—1st. In a tube forming machine, in combination, a frame, non-rotating dies movably supported by a stationary frame, a rotary device adapted by percussive contact to violently drive formed one of the dies, means for opening the dies to permit the hollow blank to be fed between them, a mandrel held against longitudinal movement by the frame and extending between the dies for supporting the hollow blank, mechanisms for feeding the hollow blank along the mandrel between and through the opening and closing dies, and means for rotating the hollow blank as it is fed between the dies, substantially as specified. 2nd. In a tube forming machine in combination, a frame, chambered dies supported by the frame, said chambers in the dies being adapted to be connected with a source of water supply, mechanisms for rapidly and violently opening and closing the dies, a chambered mandrel extending between the dies, said chamber in the mandrel being adapted to be connected with a source of water supply, and mechanisms for feeding the hollow blank between and through the opening and closing chambered dies, substantially as specified. 3rd. In a tube forming machine, in combination, a frame, dies supported by the frame, a percussive wheel for rapidly and violently closing and mechanisms for rapidly opening the dies, a rotary mandrel extending between the dies, for supporting and rotating the hollow blank, and feed rolls for advancing the rotating hollow blank between and through the opening and closing dies, substantially as specified. 4th. In a tube forming machine, in combination, a frame, non-rotating dies movably supported by a stationary frame, mechanisms for rapidly opening and closing the dies, a mandrel extending from the feed end of the frame to and between the dies, and supporting the blank between the dies, rolls for advancing the hollow blank between and through the opening and closing dies, and means for rotating the hollow blank as it is fed between the dies, substantially as specified. 5th. In a tube forming machine, in combination, a frame, non-rotating dies movably supported by a stationary frame, a rotary device adapted by percussive contact to violently drive forward one of the dies, means for opening the dies to permit the hollow blank to be fed between them, mechanisms for feeding the hollow blank between and through the opening and closing dies, a mandrel extending from the feed end of the frame to and between the dies, and supporting the blank between the dies, and means for rotating the hollow blank as it is fed between the dies, substantially as specified. 6th. In a tube forming machine, in combination, a frame, non-rotating dies movably supported by a stationary frame, percussive mechanisms for rapidly closing the dies, mechanisms for feeding the hollow blank between and through the opening and closing dies, mechanisms for rotating the hollow blank as it is fed between the dies, a mandrel held by the frame for supporting the blank, said mandrel extending between the dies, and mechanisms for rotating the mandrel, substantially as specified.

7th. In a tube forming machine, in combination, a frame, non-rotating dies movably supported by a stationary frame, mechanisms for rapidly opening and closing the dies, mechanisms for feeding the hollow blank between and through the opening and closing dies, mechanisms for rotating the hollow blank as it is fed between the dies, a mandrel for supporting the blank, said mandrel extending between the dies and having a chamber for the circulation of water at the die end, and means for rotating the mandrel, substantially as specified. 8th. In a tube forming machine, in combination, a frame, dies supported by the frame, mechanisms for rapidly opening and closing the dies, mechanisms for feeding the hollow blank between and through the opening and closing dies, and rolls for rotating the hollow blank before it reaches the dies, substantially as specified. 9th. In a tube forming machine, in combination, a frame, non-rotating dies movably supported by a stationary frame, mechanisms for rapidly opening and closing the dies, a mandrel extending between the dies for supporting the hollow blank, a sleeve supported by and movable independently of the mandrel for forcing the hollow blank between and through the opening and closing dies, feed rolls for advancing the sleeve, and means for rotating the hollow blank as it is fed between the dies, substantially as specified. 10th. In a tube forming machine, in combination, a frame, non-rotating dies movably supported by a stationary frame, mechanisms for rapidly opening and closing the dies, a mandrel extending between the dies for supporting the hollow blank, a sleeve supported by and movable independently of the mandrel for forcing the hollow blank between and through the opening and closing dies, feed rolls for advancing the sleeve, and means for rotating the hollow blank as it is fed between the dies, substantially as specified. 11th. In a tube forming machine, in combination, a frame, non-rotating dies movably supported by a stationary frame, backing shoes supported by a frame behind the dies, mechanisms for rapidly opening and closing the dies, a mandrel extending between the dies for supporting the hollow blank, mechanisms for feeding the hollow blank between and through the opening and closing dies, and means for rotating the hollow blank as it is fed between the dies, substantially as specified. 12th. In a tube forming machine, in combination, a frame, non-rotating dies supported by a stationary frame, backing shoes supported by a frame behind the dies, removable wedges located between the dies and backing shoes, mechanisms for rapidly opening and closing the dies, a mandrel extending between the dies for supporting the hollow blank, mechanisms for feeding the hollow blank between and through the opening and closing dies, and means for rotating the hollow blank as it is fed between the dies, substantially as specified. 13th. In a tube forming machine, in combination, a frame, dies supported by the frame, a percussive wheel adapted to drive one of the dies forward, a mandrel extending between the dies for supporting the hollow blank, and mechanisms for feeding the hollow blank between and through the opening and closing dies, substantially as specified. 14th. In a tube forming machine, in combination, a frame, dies supported by the frame, a percussive wheel mounted in bearings held by an adjustable block and adapted to percussively drive one of the dies forward, means for adjusting the block, a mandrel extending between the dies for supporting the hollow blank, and mechanisms for feeding the hollow blank between and through the opening and closing dies, substantially as specified. 15th. In a tube forming machine, in combination, a frame, non-rotating dies movably supported by a stationary frame, a spring for opening the dies, wedges held back of the dies, levers and arms connected with the wedges whereby they may be removed from back of the dies to allow the spring to throw the dies open, a percussive wheel adapted to drive one of the dies forward, a mandrel extending between the dies for supporting the hollow blank, mechanisms for feeding the hollow blank between and through the opening and closing dies, and means for rotating the hollow blank as it is fed between the dies, substantially as specified. 16th. In a tube forming machine, in combination, a frame, hollow dies supported by the frame, a spring normally tending to trust the dies from each other, wedges back of the dies, removable shoes back of the wedges, a revolving wheel with rolls adapted to make percussive contact with one of the shoes, said wheels being mounted on a journal held by bearings on an adjustable carriage, a hollow rotary mandrel for supporting and revolving the blank between the dies, and feed rolls for advancing the blank between and through the dies, substantially as specified.

**No. 57,832. Pruning Implement. (*Sécateur.*)**

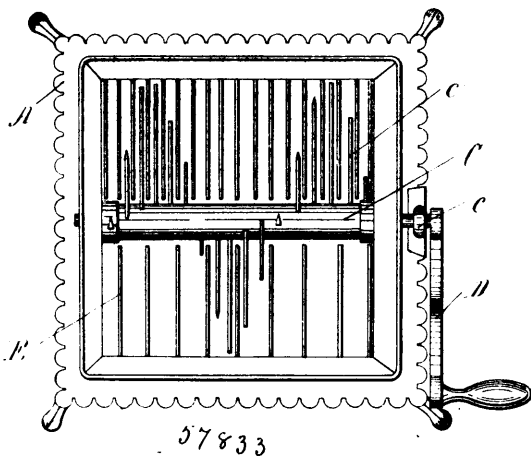


Thomas H. Springston, Pasco, West Virginia, U.S.A., 19th October, 1897; 6 years. (Filed 23rd September, 1897.)

*Claim.*—1st. In a pruning implement, the combination of a handle, a saw frame movable along the handle and provided with a knife blade, a saw blade also carried by the saw frame, means to lock the

saw frame against longitudinal movement on the handle, and a knife blade carried by the handle and arranged to operate in connection with the knife blade of the saw frame, substantially as set forth. 2nd. In a pruning implement, the combination of a handle, a saw frame movable along the handle and pivotally connected to the lever, said saw frame having a saw blade and being provided with a knife blade, a lever fulcrumed at its inner end on the handle and pivoted between its ends to the saw frame, adjacent to the knife blade thereof, and having its outer portion forming a knife blade, arranged to co-operate with the said blade, and means to lock the saw frame against movement along the handle, substantially as set forth. 3rd. In a pruning implement, the combination of a handle, side bars secured to the upper end thereof and connected by a tie-piece extending across the front of the handle, a lever pivoted to the upper ends of the side bars and having a knife blade, a saw frame having its lower end guided on the handle and its upper end pivotally connected to the lever and provided with a knife blade to operate in connection with the knife blade on the lever, a saw blade carried by the saw frame, and a dog pivoted to the saw frame and arranged to engage a recess in the handle beneath said tie-piece to hold the saw frame against longitudinal movement on the handle, substantially as set forth.

**No. 57,833. Cabbage Cutter.**  
(Machine pour trancher les choux.)



Edouard Gaboury, Québec, Canada, 19 octobre 1897 ; 6 ans.  
(Déposé 26 août 1897.)

Résumé.—1°. Une machine pour couper les légumes, comprenant une boîte, un cylindre pourvu de couteaux sur son pourtour, et des barres horizontales fixées dans les bords de la boîte perpendiculairement et à la hauteur de l'axe du cylindre, le tout tel que décrit et pour les fins indiquées.

**No. 57,834. Matter for Curing Cancers and Cancerous Sores.** (Composition médicinale pour cancers.)

Levi Lewis, London, Ontario, Canada, 20th October, 1897 ; 6 years.  
(Filed 9th July, 1897.)

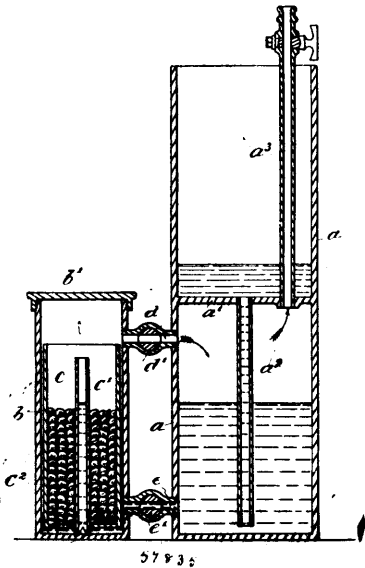
Claim.—A compound, consisting of alcohol, brandy, alum and rock salt, in the proportions and for the purpose set forth.

**No. 57,835. Gas Generator.** (Générateur à gaz.)

George Webb June, New Kent Road, London, and Joseph William Kelly, London, both in England, 20th October, 1897 ; 6 years.  
(Filed 15th January, 1897.)

Claim.—1st In apparatus for automatically generating gas, the use of a gas-holder formed with two chambers and containing a head or body of water, a portion of which is brought into contact with calcium carbide contained in a separate chamber communicating with one of the chambers of the gas-holder, upon the pressure of the gas formed in the latter decreasing, substantially as herein described and set forth. 2nd. In apparatus for automatically generating gas, the use of a gas-holder a divided into upper and lower chambers by a partition *a*<sup>1</sup>, the lower chamber being provided with a central tube *a*<sup>2</sup> reaching nearly to the bottom, and a gas outlet tube *a*<sup>3</sup>, the said chambers containing a head or body of water, substantially as herein described and set forth. 3rd. In apparatus for automatically generating gas, the combination with

the gas-holder *a*, divided into upper and lower chambers and containing a head or body of water, of a separate chamber *b*, provided



with a cover *b*<sup>1</sup>, and carrying a holder or open-tapped vessel *c*, fitted with a central tube *c*<sup>1</sup>, and containing calcium carbide, the said chamber *b* communicating with the lower chamber of the gas-holder *a* by a gas connection *d*, fitted with a cork *d*<sup>1</sup>, and a water connection *e*, fitted with a cork *e*<sup>1</sup>, substantially as herein described and for the purposes set forth. 4th. In apparatus for automatically generating gas, the use of a gas-holder divided into upper and lower chambers, the upper one of which contains a head of water acting upon a body of water in the lower one so as to cause the said body of water to rise and bring a portion thereof into contact with calcium carbide contained in a separate chamber, upon the presence of the gas in the lower chamber decreasing, substantially as herein described and set forth.

**No. 57,836. Process for the Production of Peat Briquettes.** (Procédé pour production de la briquettes de tourbe.)

Emanuel Stauber, Berlin, Germany, 20th October, 1897 ; 6 years.  
(Filed 10th June, 1897.)

Claim.—1st. Process for the production of peat briquettes characterized by the peat being first strongly heated for the purpose of breaking up the capillary vessels and deliquidized by mechanical pressure, being then freed from fibre, after crushing, by means of jigger sieves, then dried in artificial ovens and finally compressed and shaped in a briquette machine. 2nd. The deliquidization of peat carried out in such manner that the peat is first subjected to the direct heating effect of an electric current whereby the capillary vessels are burst and their liquid contents liberated, whereupon it is subjected to great pressure in a hydraulic press and the simultaneous indirect heating effect of the electric current, the liberated water being thus forced out. 3rd. The drying of peat carried out in such manner that the deliquidized and fibre freed peat is first preliminarily dried in a fire gas oven by direct contact with the hot products of combustion passing through, it being then ground and finally dried in a steam oven up to a point when it contains only a small degree of moisture.

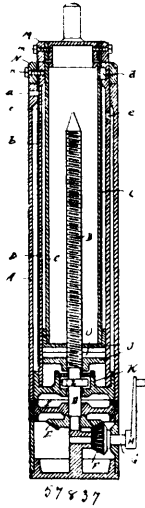
**No. 57,837. Extension and Retraction Device.**

(Appareil à extension et rétraction.)

James J. Gier, Detroit, Michigan, U.S.A., 20th October, 1897 ; 6 years.  
(Filed 11th October, 1897.)

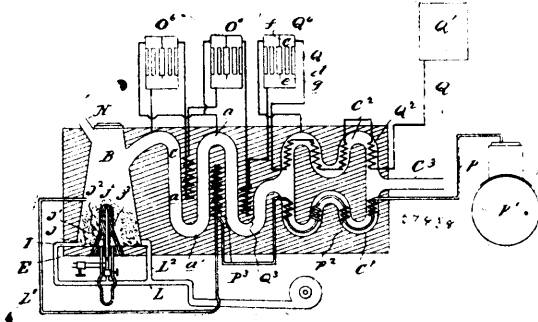
Claim.—1st. In a hoisting apparatus, the combination of an outside stationary section, a vertical screw-shaft journaled in said outside section, two movable sections concentric with and within said outside stationary section, a nut in the inside section engaging with said screw-shaft when both sections are at their lowest point, a nut in the bottom of the outer movable section below the threaded portion of said screw-shaft when said section is at its lowest point, a dog to couple said movable sections together, adapted to be operated by the upper portion of said threaded shaft, and means substantially such as described for preventing said movable sections from rotating, substantially as and for the purposes set forth. 2nd. In a hoisting apparatus the combination of an outside section, a vertical shaft journaled in said section free to rotate but held against longitudinal motion and having a portion of its length threaded, two concentric movable sections each provided with a nut at its lower end to en-

gage with the threaded portion of said screw-shaft, a dog carried by the inner movable section and adapted to engage with the outer



movable section near its upper end, and also adapted to cause the inner movable section to raise the outer movable section, substantially as shown and described. 3rd. In a hoisting apparatus the combination of an outer stationary section, a screw-threaded shaft, means for rotating said shaft, a plurality of concentric movable sections, the inner one of which is in engagement with said screw-shaft when the apparatus is closed, whereby the rotation of said shaft raises the inner movable section, a dog for locking said inner movable section to the adjacent section at a certain point in its extension, and a nut in said adjacent section adapted to engage with said screw-shaft, substantially as shown and described. 4th. In a hoisting machine the combination with a stationary section and a threaded shaft journaled in said section, of means for rotating said shaft, a plurality of concentric moving sections and means for successively engaging said sections with said threaded shaft and for locking each section as it nears the upper end of said threaded shaft with the next outer section, substantially as shown and described. 5th. In a hoisting apparatus the combination of a stationary outer section, a screw-threaded shaft journaled in said section and provided with means for rotating the same in either direction, of a plurality of concentric inner movable sections, means for successively connecting said sections with said screw-shaft beginning with the innermost section in extending the apparatus and ending with the innermost section in retracting the apparatus, means for locking each movable section to the next outer movable section at a certain point in its extension and for unlocking the same at a corresponding point in its retraction, substantially as shown and described.

**No. 57,838. Apparatus for Manufacturing Gas.**  
(Appareil pour la fabrication du gaz.)

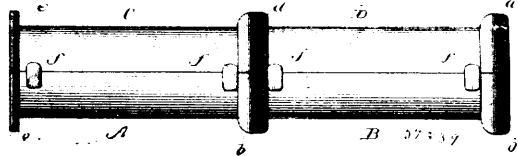


Ezra S. Hoyt, Detroit, Michigan, and Garret F. Speer, Canistota, New York, both in the U.S.A., 20th October, 1897; 6 years. (Filed 26th April, 1897.)

*Claim.*—1st. In a gas apparatus, the combination of a generator, a regenerating-conduit extending therefrom, two branches as C<sup>1</sup>, C<sup>2</sup> thereof, oil-superheating coils in one of said branches, steam-superheating coils in the other branch, and connections from said oil-coil into the conduit, and from the steam-coil to the generator, substantially as described. 2nd. In a gas apparatus, the combination of a generator, a regenerating-conduit extending therefrom in a serpentine path through brickwork, transverse serpentine conduits in the brickwork between the loops of the regenerating conduit, superheating-coils for oil and steam in said transverse conduits. 3rd. In

a gas apparatus, the combination of a generator, a regenerating-conduit extending therefrom in a serpentine path through brickwork, branches at the end of said conduit vertical serpentine conduits formed in each of said branches, oil superheating coils in one of said branch conduits, steam-superheating coils in the other branch thereof, and discharge connections from the coils leading into the generator and the conduit. 4th. In a gas apparatus, the combination of the generator, the serpentine regenerator-conduit extending therefrom, a series of transverse serpentine heating-chambers between the loops of the regenerator-conduit, oil-heating coils in such transverse chambers, a series of condensers, oil-pipes leading from the coil in said transverse heating-chambers to the condensers, and pipes leading from the gas-chambers of the condensers to intermediate portions of the regenerator-conduit, and a pipe leading from the oil-chamber of the last condenser to at or near the generator, substantially as and for the purpose described.

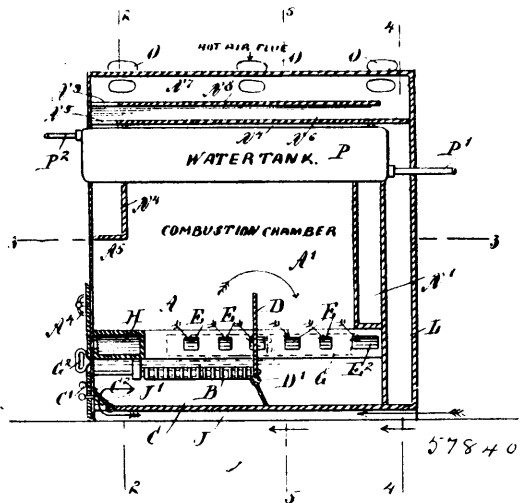
**No. 57,839. Drain Tile.** (Tuile d'égout.)



Charles Traub and John W. Helfrecht, both of Germania, Pennsylvania, U.S.A., 20th October, 1897; 6 years. (Filed 11th October, 1897.)

*Claim.*—1st. A horizontally-divided drain tile comprising the upper and lower sections each having at one end an external solid tongue and at the other end provided with an enlarged bead, the internal diameter of which is greater than the radius of the section, and said bead having a deep tongue-receiving groove lying outside of the passage with the spaced upwardly-extending lugs f, f<sup>1</sup>, said lugs f, arranged within the external tongue for a distance equal to half the width of the grooved bead, and the lugs f<sup>1</sup>, lying close up to the bead for the purpose described, substantially as set forth. 2nd. The lower drain sections interlocked endwise together and provided with the upwardly extending lugs f, f<sup>1</sup>, the adjacent pairs of which on the interlocked ends of said sections are spaced apart equal to the width of the joints between upper sections, in combination with upper sections interlocked endwise together by tongue and grooved-bead joints which are fitted between said pairs and adjacent lugs, for the purposes described, substantially as set forth.

**No. 57,840. Heater.** (Chauffeur.)



Adam Weir Ringland, Toledo, Ohio, U.S.A., 20th October, 1897; 6 years. (Filed 8th October, 1897.)

*Claim.*—1st. A heater, comprising a combustion chamber, having its opposite side walls curved inwardly, whereby convex surfaces are presented to the products of combustion, a grate arranged in the base of said chamber, and hot-air chambers on opposite sides of the combustion-chamber, and air inlets and outlets for both air and products of combustion, substantially as shown and described. 2nd. A heater, comprising a combustion chamber, having opposite, inwardly-curved side walls, and a grate located at its base, segmental hot-air chambers on opposite sides of said combustion-chamber, and chambers F and F<sup>1</sup> arranged exteriorly to the hot-air chambers, and having valved openings in their lower portion for communicating with the combustion-chamber, substantially as shown and described. 3rd. A heater, comprising a fire-box, having

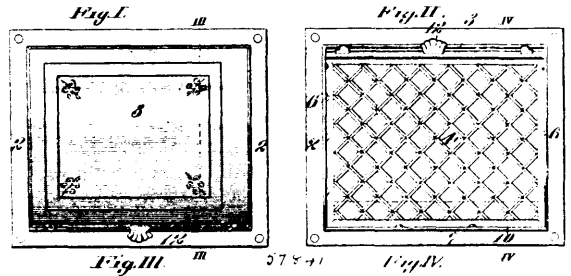
a combustion-chamber, side chambers having valved communications with the said combustion-chambers, one of the side chambers leading to the chimney-flue, and a cross flue connecting the two chambers with each other at the end opposite to where the chimney-flue is located, substantially as shown and described. 4th. A heater, comprising a fire-box having a combustion chamber, side chambers extending from the sides of the said combustion-chamber, valves for controlling the communications between the said fire-box and the said side chambers, and a cross flue for connecting the free ends of the said side chambers with each other, substantially as shown and described. 5th. A heater, comprising two exterior hot-air circulating chambers connected with each other at their ends, interior hot-air chambers connected with each other at their rear ends, and one being connected at its front end with one of the said exterior hot-air chambers and a central hot-air chamber, and a central hot-air chamber connected with the other hot-air chamber and outlet openings, substantially as shown and described. 6th. A heater, comprising two exterior hot-air circulating chambers connected with each other at their rear ends, interior hot-air chambers connected with each other at their rear ends, and one being connected at its front end with one of the said exterior hot-air chambers, a central hot-air chamber connected with the other interior hot-air chamber, and a distributing dome connected with the said central hot-air chamber, substantially as shown and described. 7th. A heater, comprising two exterior hot-air circulating chambers connected with each other at their rear ends, interior hot-air chambers connected with each other at their rear ends, and one being connected at its front end with one of the said exterior hot-air chambers, a central hot-air chamber connected with the other interior hot-air chamber, and a distributing dome connected with the said central hot-air chamber, and a partition or baffle-plate in the said dome to deliver part of the hot-air rising from the said central hot-air chamber to the rear part of the dome and the rear distributing pipes, substantially as shown and described. 8th. A heater, comprising a fire-box having a combustion-chamber, side chambers having valved communications with the said combustion-chamber, one of the chambers being connected with the chimney-flue, a cross-flue for connecting the front ends of the said side chambers with each other, exterior hot-air circulating-chambers connected with each other at their rear ends and arranged on the outside of the said chambers, and interior hot-air chambers connected with each other at their rear ends and located between the said side chambers and the combustion-chamber and outlet-openings, substantially as shown and described. 9th. A heater, comprising a fire-box having a combustion-chamber, side chambers having valved communications with the said combustion-chamber, one of the chambers being connected with the chimney-flue, a cross-flue for connecting the front ends of the said side-chambers with each other, interior hot-air circulating chambers having air-inlets and connected with each other at their rear ends and located between the said side chambers and the combustion-chamber, a central hot-air chamber connected with one of the said interior hot-air chambers, a distributing dome connected at its rear end with the said central hot-air chamber, and a water-tank arranged in the said combustion-chamber, substantially as shown and described.

**No. 57,841. Hot Air Register. (Registre à air chaud.)**

Charles Clear, St. Louis, Missouri, U.S.A., 20th October, 1897; 6 years. (Filed 11th October, 1897.)

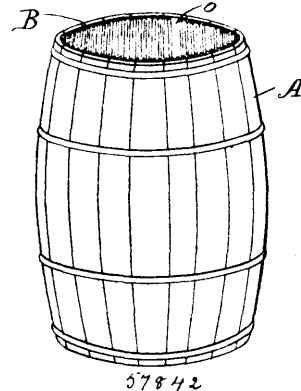
*Claim.*—1st. In a hot air register, the combination of a face plate provided with a slot along the upper side, and a hood arranged to cover the register and to slide through the slot upon opening the register, substantially as set forth. 2nd. In a hot air register, the combination of a face plate provided with a slot along its upper side, and a hood arranged to cover the register and to slide through the slot upon opening the register, the arrangement being such that the hood acts as a deflector when moved to its inner position, substantially as set forth. 3rd. In a hot air register, the combination of a face plate provided with lugs and having a slot along its upper side, and a hood arranged to cover the register and to slide through the slot upon opening the register, said hood being guided and supported by said lugs, substantially as set forth. 4th. In a hot air register, the combination of a face plate, a grille fitting in the face plate

leaving a slot between the upper side of the grille and the face plate, and a hood arranged to cover the grille and to slide through the slot



upon opening the register, substantially as set forth. 5th. In a hot air register, the combination of a face plate provided with a projection at the lower outer side thereof, and a hood arranged to cover the register with its outer end fitting within the projection and to slide through the slot upon opening the register, substantially as set forth. 6th. In a hot air register, the combination of a face plate provided with cheek plates at the sides, and a curved hood arranged to cover the register and to slide between the cheek plates to a position back of the face plate, upon the opening of the register, substantially as set forth.

**No. 57,842. Barrel Lining. (Doublure de barils.)**



Charles E. Cottrell, Minneapolis, Minnesota, U.S.A., 20th October, 1897; 6 years. (Filed 13th October, 1897.)

*Claim.*—1st. The combination with a barrel, of a yielding paper lining provided with corrugations of a character to permit said lining to expand and contract with the expansion and contraction of the barrel staves and thereby prevent the leakage of powdered substances therethrough, substantially as set forth. 2nd. The combination with a barrel, of an expandible lining provided with corrugated overlapping vertical edges interlocking at their jointure with each other, substantially as set forth. 3rd. The combination with a barrel, of a corrugated lining adapted to expand and contract with the expansion and contraction of the stave joints, which said lining is of greater length than the barrel and is folded over the ends adjacent the heads thereof, substantially as set forth. 4th. The combination with a barrel or vessel, of an expandible corrugated lining arranged therein and being composed of paraffine or water-proof paper corrugated lengthwise, substantially as set forth.

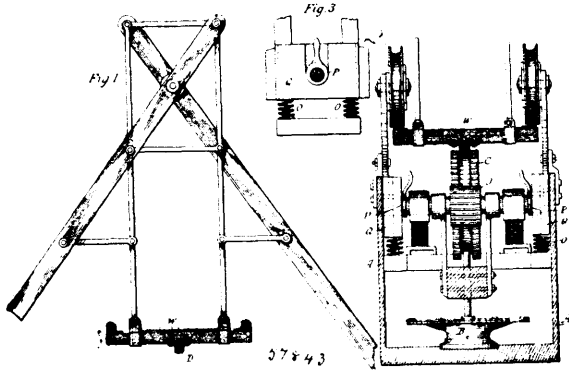
**No. 57,843. Elevated Railway.**

(Chemin de fer aérien.)

R. McCollum Fryer, Washington, Columbia, U.S.A., 20th October, 1897; 6 years. (Filed 6th October, 1897.)

*Claim.*—1st. In an elevated railway, suspended cross-ties provided at their ends, on the upper sides thereof, with track rails, and on the opposite or under sides with a traction rail or rails, for the purpose set forth. 2nd. In an elevated railway, suspended cross-ties provided at their ends, on the upper sides thereof, with track rails, and on the under sides with a traction rail or rails, in combination with one or more driving wheels arranged to operate in connection with said traction rail or rails. 3rd. In an elevated railway suspended cross-ties provided at their ends, on the upper sides thereof, with track rails, and on the under sides with a traction rail or rails in combination with one or more driving wheels adjusted to the lower rail or rails from below by pneumatic or hydraulic pressure to produce the requisite degree of traction, substantially as set forth. 4th. In an elevated railway, the arrangement of a plurality of suspended cross-ties with rails secured on the upper sides at the ends thereof, and a single rail located at or near the centre on the under side, and an adjustable driving wheel, whereby the auxiliary pressure result

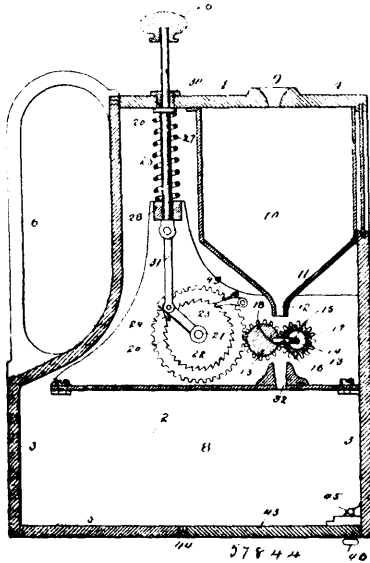
ing from the application of the traction wheel to the lower rail is distributed or divided between the two upper rails and concentrated



on the lower rail. 5th. In an elevated railway a suspended car supported by wheels resting on two rails (2) located at or near the end of the connecting ties, as shown, having an adjustable driving wheel protruding from the top of said car to engage with a rail located underneath said ties, for the combined purpose of driving the car and conducting electricity, as and for the purpose stated. 6th. In an elevated railway the combination with a plurality of suspended cross-ties, of track rails located at, or near the ends thereof on the upper side, and a toothed rack on the under side adapted to engage with a spur driving wheel protruding from the top of a swinging car located below said ties in the manner shown, for the purpose of propelling the car from the centre, as illustrated.

**No. 57,844. Fare Box Register.**

*(Registre pour boîtes à billets.)*

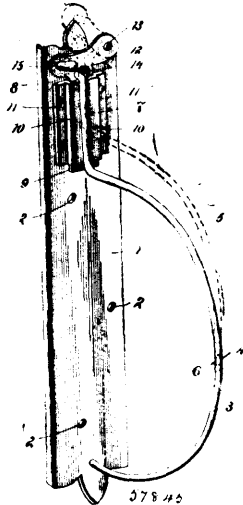


Oscar Legros, North Bay, Ontario, Canada, 20th October, 1897; 6 years. (Filed 17th April, 1897.)

*Claim.*—1st. The combination, with a receptacle for fares, of a pair of rollers located below the discharge end thereof, a receptacle located under said rollers, and means of rotating said rollers in opposite directions for insuring the feeding of the fares to the last-named receptacle, substantially as set forth. 2nd. The combination, with a receptacle for fares, of a pair of rollers rotating in opposite directions, one of said rollers being provided with punches, substantially as set forth. 3rd. The combination, with a receptacle for fares, of a pair of rollers, one of which is provided with one or more punches, and the other roller having recesses to receive said punches, substantially as set forth. 4th. The combination, with a receptacle for fares, of a pair of rollers, one of which is provided with one or more recesses, and one or more spring-actuated punches carried by the opposing roller, substantially as set forth. 5th. The combination, with a suitable receptacle for receiving fares, of a pair of rollers, one of which is provided with one or more recesses, a plunger carried by the other roller and adapted to enter said recesses, and means for simultaneously rotating said rollers in opposite directions, the punch being so arranged

that said rollers will nearly complete one revolution before the punch is thrown into action, substantially as set forth. 6th. The combination, with a suitable receptacle for fares, of a pair of feeding and punching rolls, means whereby said rolls are caused to rotate in opposite directions, a gear-wheel meshing with one of said rollers, a plunger operating through the wheel of the receptacle, and connections between said plunger and gear-wheel whereby the latter is rotated when the plunger is depressed, substantially as set forth. 7th. The combination, with a suitable box or casing, of a fare receptacle therein, punching rollers arranged at the discharge end of said receptacle, gear-wheels mounted on said rollers and meshing with each other, a spur gear-wheel meshing with one of the said gears, a ratchet wheel rigidly connected to said spur gear, an arm fulcrumed on the axle of said spur gear, a plunger, a pivotal link interposed between said plunger and arm, a pawl carried by said arm and engaging the ratchet disk, and a spring-actuated detent for preventing retrograde movement of said ratchet disk, all arranged for joint operation, substantially as set forth. 8th. The combination, with a fare register, of a suitable box or casing embodying a fare receptacle, means therein for feeding and punching the fares, a plunger for operating said mechanism, and a handle connected to the casing and arranged within the normal plane thereof, substantially as set forth. 9th. In a fare box register, the combination, with a suitable box or casing, of a hopper-shaped receptacle for the fares, a pair of feeding and punching rollers located beneath the discharge end thereof, means for simultaneously rotating said rollers in opposite directions, a bell, a lever having at one end a hammer, and at its opposite end a retracting spring, and a pin or stud on one of the rollers adapted to contact with said lever for actuating the bell hammer, substantially as set forth.

**No. 57,845. Paper File. (Enfile-lettres.)**

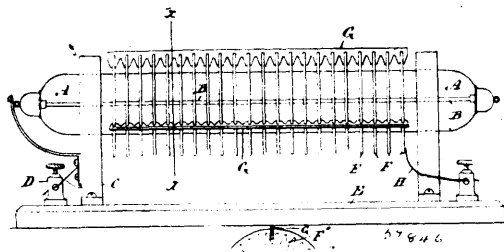


Henry John Hutchinson, Stockton-on-Tees, England, 20th October, 1897; 6 years. (Filed 7th September, 1897.)

*Claim.*—1st. A file of the class described, comprising a receiving wire, a transfer wire, a slide plate connected to the transfer wire for separating the same, substantially as described. 2nd. A file of the class described, comprising a receiving wire, a transfer wire, a slide plate connected to the transfer wire, a guide for said slide plate, and means for operating the transfer wire to open and close the file, substantially as described. 3rd. A file of the class described, comprising a receiving wire, a transfer wire, a slide plate connected to the transfer wire, a guide for said slide plate, and a lever connected to the transfer wire for operating the same to open and close the file, substantially as described. 4th. A file of the class described, comprising a receiving wire, a transfer wire, a stud carried by said transfer wire, and a lever for operating the transfer wire, said lever being provided with a slot adapted to receive said stud for connecting the lever with the transfer wire, substantially as described. 5th. A file of the class described, comprising an upwardly-curved receiving wire, a downwardly-curved transfer wire, and a lever suitably connected to the transfer wire for operating the latter to open and close the file, substantially as described. 6th. A file of the class described, comprising an upwardly-curved receiving wire, a downwardly-curved transfer wire arranged in slidable relation thereto, and means for operating the transfer wire to open and close the file, substantially as described. 7th. A file of the class described, comprising an upwardly-curved receiving wire, a downwardly-curved transfer wire arranged in slidable relation thereto, and a lever for operating the transfer wire to open and close the file, substantially as described. 8th. A file of the class described, comprising a receiving wire, a transfer wire arranged in slidable relation thereto, a slide plate carried by said transfer wire, a guide for said plate, and a lever suitably connected to the transfer wire for operat-

ing the latter to open and close the file, substantially as described. 9th. A file of the class described, comprising a base plate, a receiving wire carried thereby and projecting therefrom, a transfer wire also carried by said plate and arranged in slidable relation to the receiving wire, an arm extension formed on said transfer wire and provided with a stud projecting therefrom, a slide plate carried by said arm extension, a guide arranged upon the base plate and receiving said slide plate, and a lever pivotally connected to the base plate, said lever being provided with a slot adapted to receive the stud of an arm extension, whereby the lever is connected to the transfer wire and the latter operated for opening and closing the file, substantially as described.

**No. 57,846. Production of Ozone. (Production d'ozone.)**

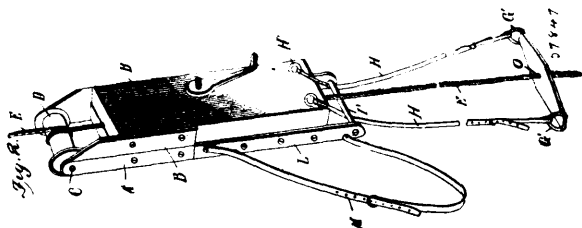


Emile Andreoli, 147 Cold Harbour Lane, S.E., London, England, 20th October, 1897; 6 years. (Filed 22nd June, 1897.)

*Claim.*—1st. The production of ozone by means of the silent discharge outside the tube between the glass and the armature, and luminosity inside the vacuum tube, which contains an axial electrode. 2nd. A machine or apparatus for the production of ozone, comprising a partially exhausted glass tube or bulb A, having within a metallic rod or electrode B passing through the ends, and a surrounding armature consisting of a series of flat rings F serrated on the inner periphery to form v-points F<sup>1</sup>, and connected on the outer circumference by bars G, and the electric connections, as set forth.

**No. 57,847. Portable Fire Escape.**

(Sawveteur d'incendie portatif.)

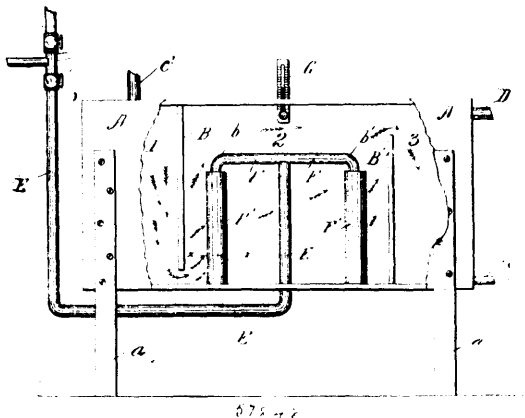


Hiliard T. Forbes and James F. Weldon, both of Hallsville, Missouri, U.S.A., 20th October, 1897; 6 years. (Filed 4th August, 1897.)

*Claim.*—1st. An improved fire escape, consisting of two friction blocks hinged together and carrying a pulley at their upper ends, and a body strap attached to the other block, the escape rope passing between the blocks, and means for increasing or decreasing the friction upon the said rope, substantially as shown and described. 2nd. In a fire escape, the combination with the friction blocks hinged together at their upper ends and carrying a pulley at said hinged joint, of the seat suspended from the lower end of one of the blocks, the body strap attached to the opposing block, the screw bolt and tension nut, said tension nut having a crank handle, and the escape rope arranged and adapted to operate, substantially as shown and described. 3rd. In a portable fire escape, the combination with the friction blocks grooved longitudinally upon their inner faces and hinged together at their upper ends, of the pulley arranged at said hinged joint, the escape rope passing between the said blocks in the longitudinal grooves, the guide staples fixed upon the inner face of one of the blocks, the seat and straps for supporting the same, and the body strap, the threaded bolt passing through friction blocks, the tension nut arranged upon the end of said bolt and having a crank handle adapted to operate, substantially as shown and described. 4th. In a portable fire escape, the combination with the friction blocks hinged together and carrying a pulley at their upper ends, of the escape rope passing between the said friction blocks, and means for holding the said blocks together and increasing and decreasing the friction thereof upon the escape rope, the pendent bail attached to the other block and passing through the said pendent bail, the seat carried at the end of said straps, and the body strap attached to one of the blocks, substantially as shown and described. 5th. In a portable fire escape, the combination with the friction blocks arranged together and carrying a pulley at their upper ends, the inner faces of said blocks being grooved longitudinally, one of said blocks carrying guide staples upon its inner

face, the opposite block having recesses in its inner face to receive the said guide staples, the escape rope passing around the pulley and between the friction blocks and resting in the longitudinal grooves, the threaded bolt passing through the blocks, the tension nut arranged upon the end of said bolt and having a crank handle, the pendent bail attached to the lower end of one of the blocks, the seat strap attached to the lower end of the other block, and passing over the lower bar of the said pendent bail, and the seat carried at the lower ends of the seat straps, said seat having a central opening through which the escape rope passes, substantially as shown and described.

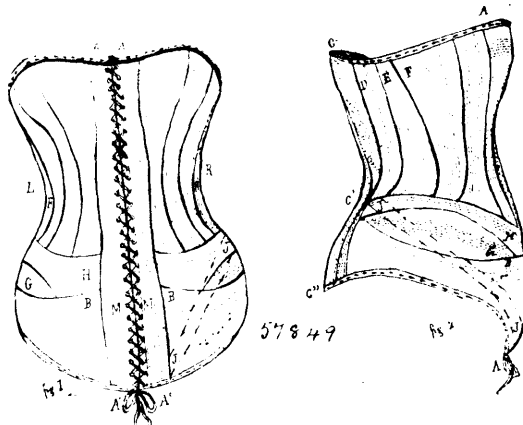
**No. 57,848. Sterilizing Apparatus. (Stérilisateur.)**



Jules Lacroix, Alexandria, Glengarry, Ontario, Canada, 20 octobre, 1897; 6 ans. (Déposé le 17 juillet 1897.)

*Résumé.*—1°. Un appareil pour stériliser le lait ou tout autre liquide, comprenant un vase clos pourvu d'ouvertures pour l'arrivée et la sortie du liquide, un tuyau amenant la vapeur en dedans du dit vase et des cylindres percés d'ouvertures longitudinales pour la sortie de la vapeur dans l'intérieur de l'appareil, le tout tel que décrit et pour les fins indiquées. 2°. Un stérilisateur comprenant un vase clos A, divisé en trois compartiments au moyen de deux cloisons B et B<sup>1</sup>, un tuyau E pour amener la vapeur en dedans de l'appareil et connectant avec des cylindres verticaux F<sup>1</sup> percés d'ouvertures longitudinales pour la sortie de la vapeur dans le liquide, tel que décrit et pour les fins indiquées.

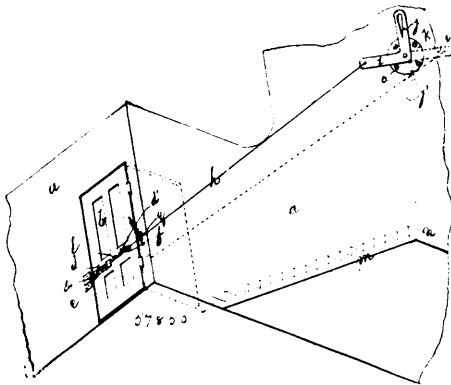
**No. 57,849. Corset. (Corset.)**



Joseph Adolphe Garneau, Québec, Québec, Canada, 20 octobre 1897; 6 ans. (Déposé le 16 septembre 1897.)

*Résumé.*—1°. Donner au corset, une forme spéciale, absolument conforme à celle, du corps humain et par ce fait, ne produisant aucune compression nuisible sur les organes vitaux tels que les pommons, le foie, l'estomac, les reins et les intestins. 2°. Ce corset donne à la femme une taille très élégante en la prenant sur le dos. 3°. Par la coupe des différentes pièces mentionnées dans cette spécification l'abdomen se trouve maintenu relevé; avantage indispensable, dans le plus grand nombre de cas, et toujours utile. Je ne réclame pas la manière ordinaire de la fabrication du corset car je sais qu'elle n'est pas nouvelle, mais je réclame comme mon invention et désire faire sujet du présent brevet. Les parties marquées A, A, D, E, F; B, G, H; et J, J, dans leurs coupes et formes particulières; la réunion des dites pièces produisant l'effet que je désire obtenir par mon invention.

**No. 57,850. Door Gear.** (*Machines pour ouvrir et fermer les portés de maisons.*)



Rodrique Colleret, Montréal, Québec, Canada, 20 octobre 1897; 6 ans. (Déposé le 19 août 1897.)

*Résumé.*—1°. Dans une targette automatique, la combinaison d'une targette *c* avec ressort *d*, corde *h* et le ressort *d'* et l'anneau mobile *f*, tel que ci-dessus décrit et pour les fins indiquées. 2°. Dans une targette automatique, la combinaison d'une corde *h* avec un levier en equerre à double tige *i* et *j* la corde *h* étant attachée, par un bout, à l'anneau *f* et, par l'autre bout, à la tige *i* du levier, tel que ci-dessus décrit et pour les fins indiquées.

**No. 57,851. Scappling Machine.** (*Machine pour boucharder la glace.*)

Fig. 1.

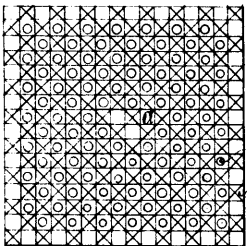
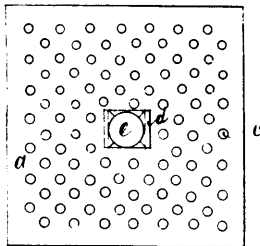


Fig. 2.

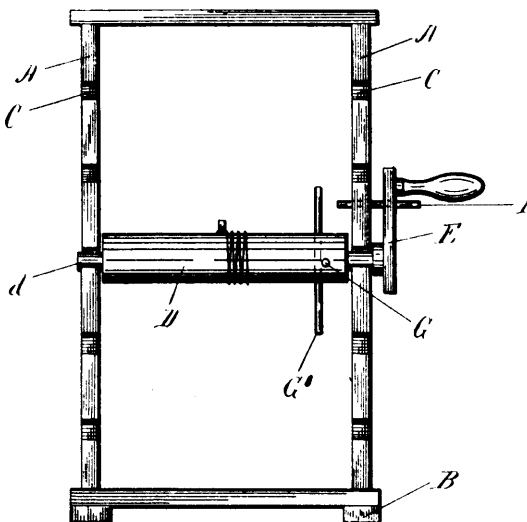


57851

Olivier Malette, Montreal, Québec, Canada, 20 octobre 1897; 6 ans (Déposé le 3 septembre 1897.)

*Résumé.*—Dans une boucharde à glace, la combinaison de la plaque *a*, des dents ou pointes *b*, avec les trous *c*, la douille *d* et le manche *e*, tel que ci-dessus décrit et pour les fins indiquées.

**No. 57,852. Wire Stretcher.** (*Appareil pour tendre la broche à ture.*)

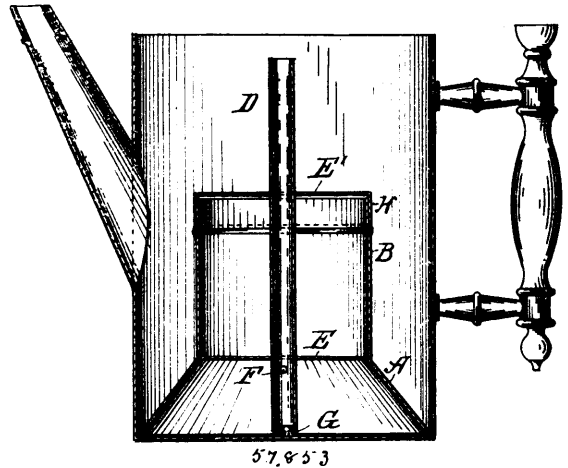


57852

Joseph Beauregard, Saint Pie, Bagot, Québec, Canada, 20 octobre 1897; 6 ans. (Déposé le 26 juillet 1897.)

*Résumé.*—1°. Dans un appareil pour tendre la broche, la combinaison d'un châssis horizontal B, un cadre vertical A assujetti sur le dit châssis et pourvu d'entailles C, avec un rouleau horizontal D monté sur un arbre *d* engageant dans les entailles C et pourvu, à une de ses extrémités, d'une manivelle E, le tout tel que décrit et pour les fins indiquées. 2°. Dans un appareil pour tendre la broche, la combinaison d'une charpente convenable comprenant un châssis horizontal B, un cadre vertical A pourvu d'entailles C, et des jambes de force *a*, avec un rouleau D, ajustable à différentes hauteurs sur le cadre A, pourvu d'une manivelle à une de ses extrémités et de trous G permettant de se servir de tiges métalliques pour tendre la broche très fort lorsque c'est nécessaire, le tout tel que décrit et pour les fins indiquées.

**No. 57,853. Coffee Pot.** (*Cafetière.*)

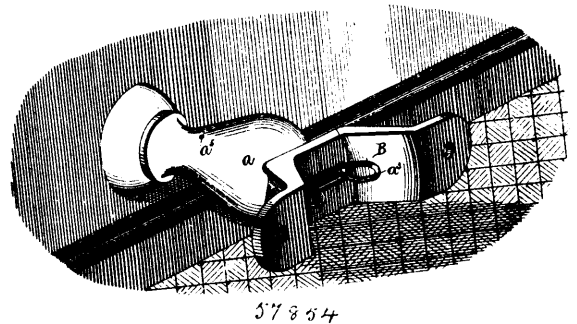


57853

Herbert Le Roy Mitchell, Pittsburg, Pennsylvania, U.S.A., 21st October, 1897; 6 years. (Filed 2nd October, 1897.)

*Claim.*—An apparatus for brewing coffee, consisting of the water chamber A, coffee chamber B, with perforated bottom and lid E, and H, hollow tube D with holes F, and post or shoulder G, the said apparatus to be used in an ordinary coffee pot with top and bottom of equal size, constructed, arranged and operating substantially as herein described and for the purposes set forth.

**No. 57,854. Combined Door Stop and Catch.** (*Fermeture de portes.*)



57854

Victor Allard, Montreal, Quebec, Canada, 21st October, 1897; 6 years. (Filed 14th October, 1897.)

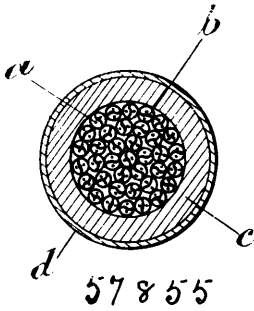
*Claim.*—1st. A combined door stop and catch comprising a door stop, having a tip of resilient material, a spring catch connected therewith, and a catch adapted to be secured to the door, said catch being adapted to embrace said spring catch, substantially as described. 2nd. A combined door stop and catch comprising a door stop, having a tip of resilient material, a spring catch having loops extending outwardly from the opposite sides of said tip, and a catch adapted to be secured to the door, said catch being adapted to embrace said spring catch, substantially as described.

**No. 57,855. Electric Cable.** (*Cable électrique.*)

Max Guillaume, Mulheim-on-the-Rhine, Germany, 21st October, 1897; 6 years. (Filed 14th March, 1897.)

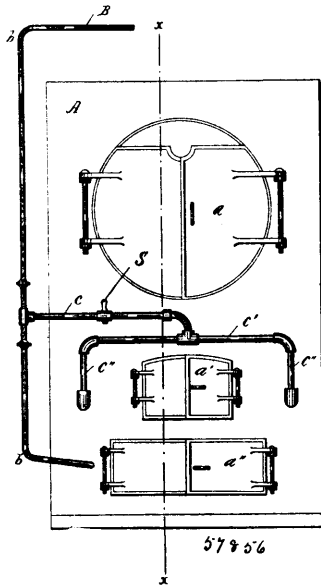
*Claim.*—1st. An electric cable comprising conductors each enclosed within an insulating envelope, the material of which is, so far as possible, out of contact with, and is unsupported by, the conductor, the said envelopes being inclosed within a soft pressing of rubber or

similar protective material, applied in a plastic state and without crushing the envelopes upon the conductors, substantially as set



forth. 2nd. In an electric cable, the combination with the conductors *a*, each inclosed within an insulating envelope *b* which is, so far as possible, out of contact with, and unsupported by, the conductor, whereby an air-space is maintained between the conductor and the surrounding insulating material, of a soft pressing *c* of india-rubber or similar protective material, applied in a plastic state without crushing the envelopes upon the conductors, and an outer protective covering *d*, of hemp, jute, thin wire or the like, substantially as specified.

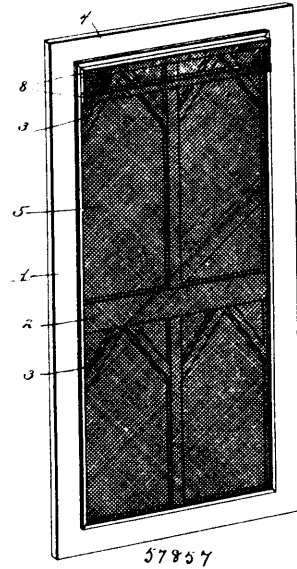
**No. 57,856. Smoke-Consuming Apparatus. (Fumivore.)**



Michel E. Bernier, Montréal, Québec, Canada, 21 octobre 1897; 6 ans. (Déposé le 28 août 1897.)

*Résumé.*—1°. Un fumivore dont chacun des murs latéraux est pourvu d'une série d'ouvertures à quelques pouces au-dessus de la grille, les dites ouvertures communiquant avec d'autres ouvertures plus grandes et moins nombreuses situées en-dessous de la grille, l'objet de toutes ces ouvertures étant d'amener une grande quantité d'air réchauffé à l'intérieur du foyer, en substance tel que décrit et pour les fins mentionnées. 2°. Dans un foyer fumivore, la combinaison avec des murs latéraux percés d'ouvertures en-dessous et en-dessus de la grille et servant à amener l'air dans le foyer, d'une conduite à vapeur disposée dans les dits murs latéraux et pourvue d'un bec vis-à-vis chacune des ouvertures supérieures, la dite conduite à vapeur étant connectée à l'extérieur du fumivore de n'importe quelle manière convenable, en substance tel que décrit et pour les fins indiquées. 3°. Dans un fumivore, la combinaison avec les murs latéraux percés d'ouvertures *J* et *G* communiquant ensemble par l'entremise de passages *H* et *F*, d'une conduite à vapeur *D* disposée horizontalement (ou à peu près) dans le dit mur à la hauteur des ouvertures *G* et pourvue d'un bec *D*<sup>1</sup> à chacune des ouvertures *G*, en substance tel que décrit et pour les fins indiquées. 4°. Dans un foyer fumivore, un pont *K* traversé par une ouverture *L* pour le passage de l'air (la dite ouverture étant recouverte par un tamis *M* empêchant les matières non-complètement brûlées de la boucher) en combinaison avec une série de pilastres *P* disposés transversalement en arrière du pont *K* et surmontés par une couronne *P*<sup>1</sup>, le tout tel que décrit et pour les fins indiquées.

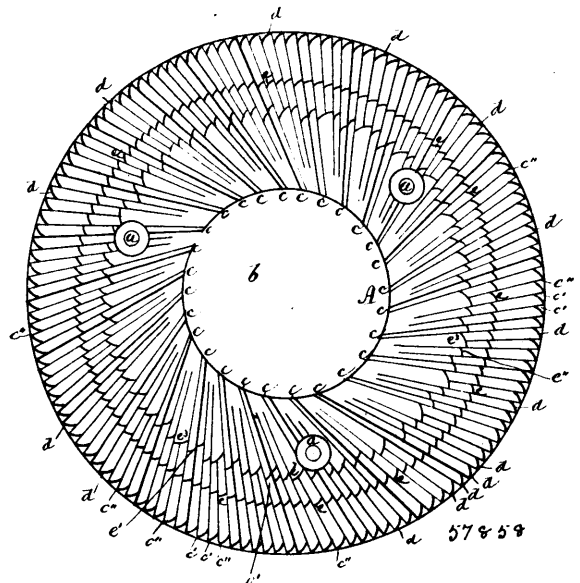
**No. 57,857. Door and Window Screen. (Porte et fenêtre à claire-voie.)**



John Madison Wells and Orville Leroy Sheek, both of Cripple Creek, Colorado, U.S.A., 21st October, 1897; 6 years. (Filed 15th October, 1897.)

*Claim.*—1st. In a screen door or window, the main screen thereof provided with outlet openings for the escape of insects through it, in combination with a pendent inner screen overhanging said openings and sufficiently removed from the main screen to permit the passage of insects up between it and the main screen, substantially as described. 2nd. The combination in a window or door screen, of the main screen provided with outlet openings, an inner pendent screen overhanging said openings, and an outer screen-covered passageway from said openings, substantially as described.

**No. 57,858. Grain Grinding Plate. (Appareil à moudre le grain.)**



James Melvin Jones and Emerald Elson Jones, both of Preston, Waterloo, Ontario, Canada, 21st October, 1897; 6 years. (Filed 27th August, 1897.)

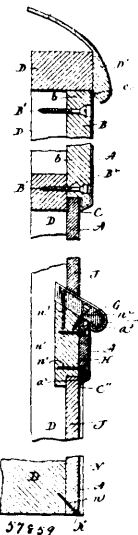
*Claim.*—1st. In a grain grinding plate, the ridges constructed at an acute angle, substantially as shown and described. 2nd. In a grain grinding plate, the ridges connected with curved cross ridges, substantially as specified. 3rd. The arrangement and construction of the inner row of irregular curved ridges. *e*<sup>1</sup>, *e*<sup>11</sup>, *e*<sup>2</sup>, between the



large ridges *c c*, substantially as shown and described. 4th. The construction of the curved middle row of ridges *c*, uniformly connecting all the ridges in curves, substantially as and for the purpose specified. 5th. The construction of curved cross ridges *d*, connecting the longitudinal ridges at the outside edge of the plate, substantially as and for the purpose specified. 6th. The arrangement and construction of all the curved cross-ridges in rows as shown in circles from the centre of the plate, substantially as and for the purpose specified.

**No. 57,859. Construction of Railway Cars.**

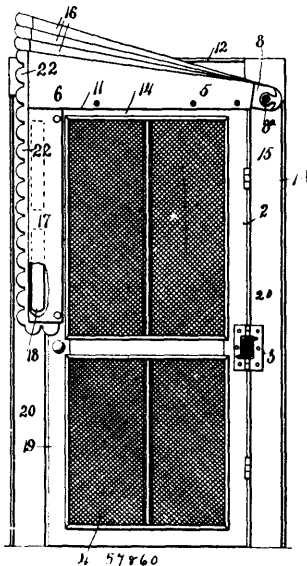
(Construction de chars.)



William Patrick Appleyard, New Haven, Connecticut, U.S.A., 21st October, 1897; 6 years. (Filed 14th October, 1897.)

*Claim.*—1st. In a railway-car, the combination with the sheathing, sash-rests, window-casings and letter-rails, of metal coverings applied thereto, substantially as described. 2nd. In a railway-car, the combination with the sheathing, sash-rests, window-casings and letter-rail, of metal coverings applied thereto, and the adjacent edges of said sections overlapping each other, substantially as described. 3rd. In a railway-car, the combination with the sheathing, sash-rests, window-casings and letter-rail, of metal coverings applied thereto and so as to cover the exposed portions of each section, the covered edge of each section overlapping the covered edge of the adjacent section, substantially as described.

**No. 57,860. Screen Door.** (Porte à claire-voic.)

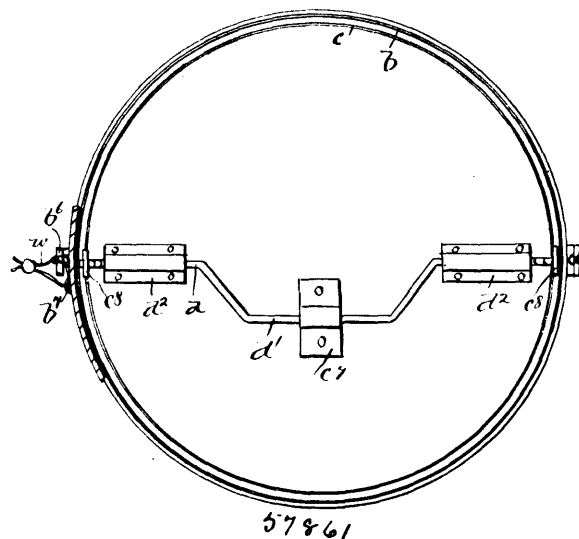


Julia Fritz, Concord, Michigan, U.S.A., 21st October, 1897; 6 years. (Filed 15th October, 1897.)

*Claim.*—1st. As a new article of manufacture, a fly-guard constructed of flexible material provided with folding sections adapted

to fold one upon the other and allow the guard to collapse, one edge of the said guard being adapted to be attached to the door-frame and the other edge to the door, substantially as described. 2nd. A fly-guard for doors, constructed of flexible material formed with folding portions adapted to fold upon each other to allow the guard to be collapsed, one edge of the guard being adapted to be attached to the door-frame and the other edge to the door, and said guard provided with an extension adapted to be secured to one side of the door and prevent entrance of the flies at that point, substantially as described. 3rd. A fly-guard for doors, constructed of flexible material having stays pivoted together and forming folding sections adapted to fold one upon the other, one edge of the guard being adapted to be secured to the door-frame and the other edge to the door, substantially as described. 4th. A fly-guard for doors, constructed of two layers or plies of flexible material provided with stays between said plies secured thereto by stitching, said stays having their ends at one side of the guard connected by rivets and forming folding sections adapted to fold together to permit the guard to collapse, substantially as described. 5th. In a fly-guard for doors, the combination with a door-frame and a door, of a fly-guard constructed of flexible material provided with stays riveted together at one end and forming folding sections to permit the guard to collapse, one edge of the guard being secured to the horizontal top bar of the door, and said guard also provided with an extension secured to the vertical side bar of the door and projecting over upon the door-jamb, substantially as described.

**No. 57,861. Butter Package.** (Boite à beurre.)



Thomas Charles Davidson, Montreal, Quebec, Canada, 21st October, 1897; 6 years. (Filed 5th January, 1897.)

*Claim.*—1st. A butter package consisting of a butter receptacle and a metallic enclosing casing, having a cover with or without one or more staple-like projections on the side thereof, one or more perforated sections carried by the body of said casing and adapted to register with the said staple-like projection or projections and a length of wire adapted to be passed through said staple-like projections and perforated sections and have the ends thereof secured together, substantially as described and for the purpose set forth. 2nd. A butter package consisting of a butter receptacle and an enclosing casing formed with inwardly projecting sections in its top and bottom and a series of inwardly projecting annular sections in its body portions, substantially as described and for the purpose set forth. 3rd. A butter package consisting of an open butter receptacle having upwardly projecting perforated lugs, a removable cover for said receptacle having a handle formed from a length of wire, the central portion whereof is off-set to form a handle portion proper, and the ends of said length of wire being cranked or off-set at right angles to said central off-set portion, means for pivotally securing said handle to said cover, and said off-set ends of the handle being adapted to take into said lugs, substantially as described and for the purpose set forth. 4th. A butter package consisting of an open butter receptacle having upwardly projecting perforated lugs, a removable cover for said receptacle having a handle formed from a length of wire, the central portion whereof is off-set to form a handle portion proper, and the ends of said length of wire being cranked or off-set at right angles to said central off-set portion, means for pivotally securing said handle to said cover and said off-set ends of the handle being adapted to take into said lugs, and an enclosing casing formed with inwardly projecting sections in its top and bottom and a series of inwardly projecting annular sections in its body portion, substantially as described and for the purpose set forth.

No. 57,862. Device for Setting Broken Links.

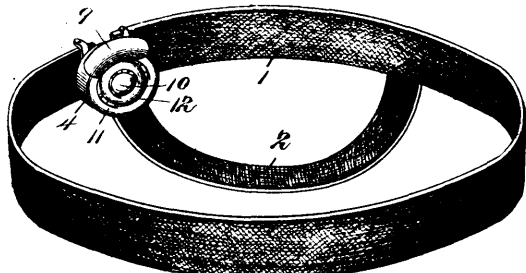
(Appareil pour reparer les mailles bris es.)



Nazareth Pagnette and William Pagnette, both of Petersburg, Michigan, U.S.A., 21st October, 1897; 18 years. (Filed 16th September, 1897.)

Claim.—In a device of the class described, the combination of two parallel rods each consisting of a series of detachable and longitudinally adjustable sections, a cross-bar connecting the opposite sections of the rods at one end, a strap connecting the adjoining sections of the rods at the opposite ends, a pad consisting of a socket piece detachably connected with the terminal sections of one of said rods, and a removable curve plate secured thereto and provided with padding, a winding drum adjoining the connecting cross-bar and provided with a pin or projection, an attaching strap for engagement with the limb provided with openings adapted to be engaged by said pin, and a series of straps provided with pads for holding the limb in position, said straps being adapted for attachment thereto by means of the attaching devices which adjustably connect the sections of the two parallel rods of the device together, substantially as described.

No. 57,863. Truss. (Bandage herniaire.)



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Samuel Ide, Joseph Swart, both of Medina, and Andrew J. McGraw, Geneva, all in New York, U.S.A., 21st October, 1897; 6 years. (Filed 15th September, 1897.)

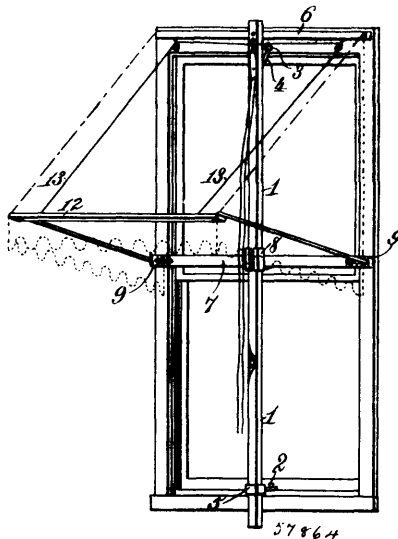
Claim.—1st. An integral truss pad, comprising a central button, a series of concentric rings spaced apart and located in about the same plane as the button and convexed on their bearings or outer faces, and ribs in the rear of the button and rings and spanning the spaces between and connecting them, substantially as set forth. 2nd. As an improved article of manufacture, a truss pad comprising a concentric series of rings spaced apart and connected together by integral ribs, and a segmental facial projection at the edge thereof, substantially as and for the purpose set forth. 3rd. As an improved article of manufacture, a truss pad comprising a central button 10, and a concentric series of rings spaced apart and connected together and to the button by ribs 12, the space between the ribs being open and said ribs providing the places of support for the attachment of the usual straps, substantially as described. 4th. As an improved article of manufacture, a truss pad comprising a concentric series of rings spaced apart and connected together by ribs, and a segmental facial projection at the edge or periphery of the outer ring of the series, the rings and the projection having a convex bearing face, substantially as and for the purpose set forth.

No. 57,864. Awning. (Auvent)

The Anchor Supply Co., Evansville, Indiana, assignee of Louis Talbott Hagan, Winchester, Kentucky, U.S.A., 21st October, 1897; 6 years. (Filed 29th September, 1897.)

Claim.—1st. In an awning, the combination with a main supporting or guide bar, a socket or ring loose upon said bar and adapted to engage a pin on the sill of the window, a hook secured to said bar and adapted to engage an eye carried by the upper part of the frame of the window, substantially as described. 2nd. In an awning, the combination with a main supporting or guide bar, of two cross arms pivotally connected intermediate their ends to said bar, and adapted to be turned on their pivots into a plane substantially parallel with said guide bar, and an awning frame and awning secured to said cross arms, substantially as described. 3rd. In an awning, the combination with a main supporting or guide bar, of a cross arm pivotally connected intermediate its ends to said bar near its upper end, a second cross arm having a pivotal and vertically movable connection with said main supporting or guide bar, said cross arms adapted to be turned on their pivots into a plane substantially par-

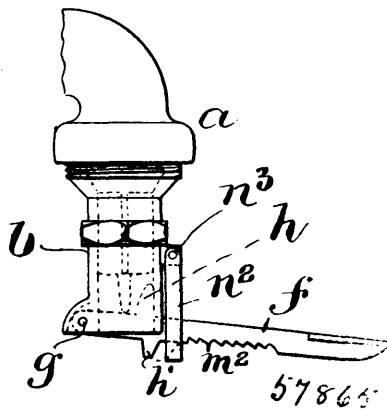
allel with said guide bar, and an awning frame and awning secured to said cross arms, substantially as described. 4th. In an awning,



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the combination with a main supporting or guide bar having means for detachable connection with a window frame, of two cross arms pivotally connected to said bar, rods pivotally connected to the lower of said cross arms, a front cross arm connecting said rods, and an awning secured to the upper cross arm and the front cross arm, substantially as described.

No. 57,865. Faucet. (Robinet.)



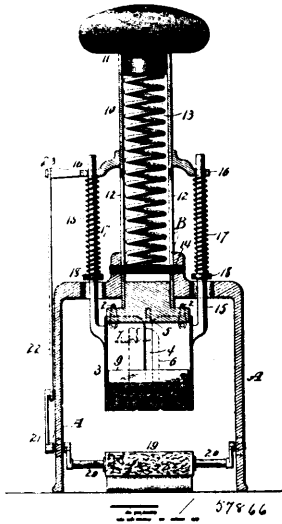
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The American Automatic Faucet Co., assignee of Patrick Kelly O'Lally, both of Boston, Mass, U.S.A., 21st October, 1897; 6 years. (Filed 23rd September, 1897.)

Claim.—1st. A faucet having a downwardly projecting nozzle, a downwardly closing valve in said nozzle, a lever pivoted to the nozzle and having a valve-raising portion within and surrounded by the nozzle below the valve, and an external portion outside the nozzle arranged to be displaced from its normal position by pressure applied outside the nozzle, the displacement of the lever raising the valve from its seat, while the location of the valve-raising portion of the lever within the nozzle prevents the lever from scattering the liquid discharged. 2nd. A faucet having a downwardly projecting nozzle, a downwardly closing valve in said nozzle, a lever pivoted to the nozzle and having a valve-raising portion within and surrounded by the nozzle below the valve, and an external portion outside the nozzle arranged to be displaced from its normal position by pressure applied outside the nozzle, the displacement of the lever raising the valve from its seat, and an adjustable detent for holding the lever and valve in their displaced positions. 3rd. A faucet comprising a spout having a valve-seat, a check-valve on said seat, and a lever pivoted to the exterior of the faucet at a point above the mouth of the spout and extending along the exterior of the spout toward said mouth in position to receive displacing pressure from a vessel surrounding the spout, the lower end of said lever being provided with an arm projecting upwardly into the said mouth and engaged with the valve. 4th. A faucet having a downwardly projecting nozzle, a downwardly closing valve in said nozzle, a valve-

raising lever pivoted to the nozzle and projecting laterally therefrom, and arranged to be operated by upward pressure against it, and a fixed elongated stop or abutment extending beside the lever and arranged to arrest the upward movement of a vessel pressed against the lever to open a valve, the lower edge of the lever being inclined relatively to the stop or abutment, so that the extent of the upward movement of the lever may be determined by the distance of the acting portion of the vessel from the nozzle, 5th. A faucet having a downwardly projecting nozzle, a valve-raising lever pivoted to the nozzle, a series of ratchet teeth on one of said parts, a pivoted dog or pawl on the other part, said ratchet teeth and pawl co-operating in holding the lever in a series of different positions, and a valve bearing on the lever and adapted to be supported thereby in a corresponding series of positions.

**No. 57,866. Stamp Affixing Device.**  
(Machine à poser les timbres.)



William Austin Carney and John Irwin, both of Santa Paula, California, U.S.A., 21st October, 1897; 6 years. (Filed 24th September, 1897.)

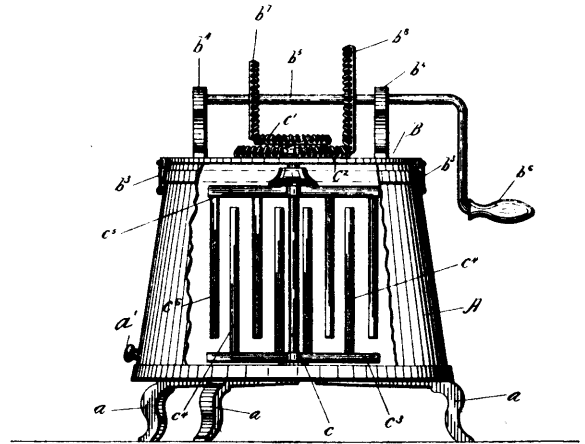
*Claim.*—1st. In a stamp-affixing machine, the combination with a frame or body portion, and a spring-actuated plunger sliding up and down therein, of a removable stamp magazine, devices for detachably connecting it to the plunger, and springs connected with the magazine for retaining it yieldingly in position relative to the plunger when the latter operates to slide in the magazine. 2nd. In a stamp-affixing machine, the combination with a frame or body portion, and a plunger having projections thereon, of a stamp magazine having vertical slots through which the projections extend and through which they slide, and spring-actuated latches normally closing the slots in the magazine and projecting beneath the stamps, said catches inclined at their upper edges, whereby they are caused to open or swing aside as the projections on the plunger engage them. 3rd. In a stamp-affixing machine, the combination with a frame or body portion, and a plunger operating therein, of a stamp magazine detachably connected with the plunger and in which the plunger slides, said magazine having rods which pass loosely through a collar on the plunger-rod, and springs which bear on the collar. 4th. In a stamp-affixing machine, the combination with a frame or body-portion, a plunger, a stamp magazine suspended on the plunger, said magazine having rods which extend loosely through a collar on the plunger, and springs surrounding these rods and bearing downwardly upon the rods and upwardly upon the collar, of a rocking stamp-moistener, and means extending from the collar to the moistener to rock the latter over as the plunger is depressed.

**No. 57,867. Churn. (Baratte.)**

George William Traill Nicholson, assignee of John Bean, both of Montreal, Quebec, Canada, 21st October, 1897; 6 years. (Filed 7th October, 1897.)

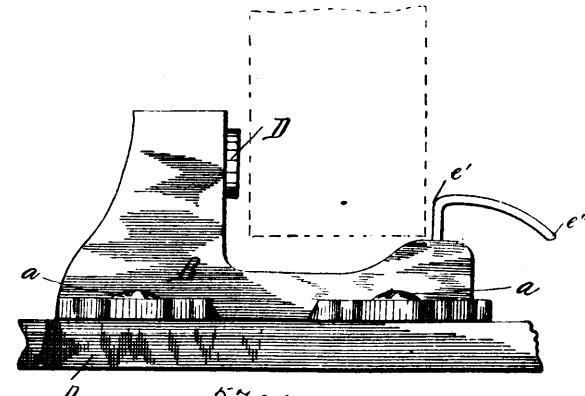
*Claim.*—1st. In a churn, the combination with a churn body having a removable cover; of two dashers one above the other, removably located in said churn body, said dashers having vertical agitators; and means for rotating said dashers in opposite directions, substantially as described. 2nd. In a churn, the combination with the churn body having a sectional removable cover; of dashers

removably located in said churn body, and adapted to be rotated in opposite directions; gearing centrally mounted to rotate said



dashers in opposite directions, and gearing mounted to rotate in one direction for operating said central gearing, substantially as described.

**No. 57,868. Door Stop. (Arrête-porte.)**



Joseph Martel et Jean Baptiste Wilson, tous deux de Montréal, Québec, Canada, 21 octobre 1897; 6 ans. (Déposé le 22 septembre 1897.)

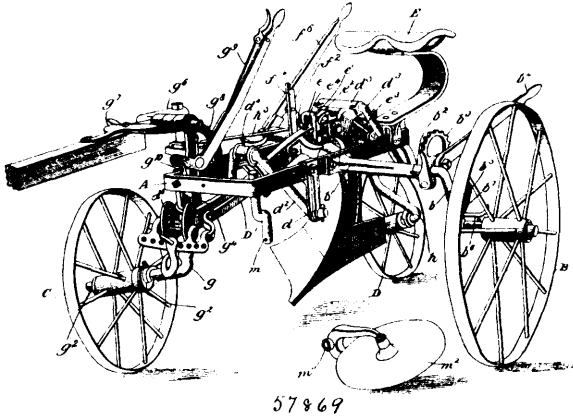
*Résumé.*—1°. Un arrête-porte comprenant un talon vertical pourvu d'une pièce en caoutchouc ou autre substance convenable, deux semelles horizontales pouvant être fixées sur le plancher et un ressort fixé par une de ses extrémités au-dessous du talon précité, et ayant son autre extrémité recourbée pour retenir la porte lorsqu'il est dans sa position normale et aussi pour permettre de le ployer facilement avec le pied pour dégager la porte lorsqu'on le désire, le tout tel que décrit et pour les fins indiquées. 2°. Un arrête-porte comprenant un talon b<sup>11</sup> deux semelles b<sup>1</sup>, un morceau de caoutchouc D disposé dans le talon, un ressort E fixé en dessous du talon et recourbé à son extrémité libre pour retenir la porte entre le talon b<sup>11</sup> et la partie c e<sup>1</sup> du ressort, et aussi pour permettre à la porte de s'engager facilement dans l'appareil, tel que décrit et pour les fins indiquées. 3°. Dans un arrête-porte, la combinaison d'une pièce principale comprenant une partie verticale ou talon pourvu d'un morceau de caoutchouc ou autre substance analogue, et deux parties horizontales ou semelles fixées au plancher, avec un ressort assujéti par une extrémité au-dessous du talon entre les semelles et ayant son extrémité libre recourbée pour permettre à la porte d'engager facilement dans l'appareil, puis ensuite la retenir afin qu'elle ne se ferme pas par accident, le tout tel que décrit et pour les fins indiquées.

**No. 57,869. Wheel Plough. (Charrue à roue.)**

Deere & Company, assignee of Staley Dane Poole, both of Moline, Illinois, U.S.A., 21st October, 1897; 6 years. (Filed 8th October, 1897.)

*Claim.*—1st. In a wheel plough, the combination with a frame and supporting wheels therefor, of one or more plough-beams held so as to be raised or lowered upon said frame, a lifting-lever, together with a knuckle or locking connection between said lever and the beam or beams, whereby the beams may be raised or automatically locked when in a lowered position, substantially as described.

2nd. In a wheel plough, the combination with a frame and its supporting wheels, of forwardly inclined bails pivoted to the frame so



as to swing forward either up or down thereon, one or more beams suspended from said bails to which the draft may be applied, said beams being adapted to swing forward and downward while lowering the beam or beams, and rearward and upward while raising the same, together with means for raising said beams, whereby the lowering of the ploughs may be assisted by the draft of the horses, and while they are being raised they will be carried rearward away from and out of engagement with the ground, substantially as described. 3rd. In a wheel plough, the combination with a frame and supporting wheels therefor, of one or more plough-beams held so as to be raised or lowered upon said frame, a lifting lever, a crank operated by said lever, together with a strap connecting the crank to the beam, or beams and forming therewith a knuckle or locking joint connection adapted to automatically lock said beam or beams in lowered position, and whereby the beams may be raised substantially as described. 4th. In a wheel plough, the combination with a frame and its supporting wheels, of forwardly inclined bails pivoted to the frame so as to swing forward thereon, one or more beams supported upon said bails to which the draft may be applied, a lifting-lever, together with a locking joint connection between said lever and the plough-beam or beams, whereby the ploughs may be automatically locked in lowered position, and while being raised will be carried rearward away from and out of engagement with the ground, substantially as described. 5th. In a wheel plough, the combination with a frame and its supporting wheels, of one or more plough-beams held so as to be raised or lowered upon said frame, a lifting-lever, a break-joint connection between said lever and the beam or beams, together with automatic mechanism adapted to hold said beam or beams raised, whereby the beams may be locked when lowered and readily raised and held in such position, substantially as described. 6th. In a wheel plough, the combination with a frame and its supporting wheels, of bails pivoted to the fore and rear portions of the frame, one or more beams supported by said bails so as to be raised or lowered therewith, a lifting-lever, a break-joint connection between said lever and the plough-beam or beams, together with mechanism adapted to automatically hold the beams raised, whereby the beams may be locked when lowered and readily raised and held in such position, substantially as described. 7th. In a wheel plough, the combination with a frame, and supporting wheels therefor, of one or more plough-beams held so as to be raised or lowered upon said frame, a bracket secured to the frame, a shaft journaled in the bracket, having one end secured to the lifting lever and its other end provided with a crank-arm, a strap connected to the plough-beam or beams and pivoted intermediate its ends to said arm, and a stop arranged upon the crank-arm adapted to be engaged by the end of the strap when the plough-beam or beams are lowered, whereby the beam may be raised or locked in a lowered position, substantially as described. 8th. In a wheel plough, the combination with a frame and its supporting wheels, or one or more plough-beams suspended by bails so as to be raised or lowered upon said frame, a lifting-lever, a crank operated by said lever, a strap connecting the crank to the beam and forming therewith a break-joint connection between the lever and said beam, together with a set-screw adapted to prevent said break-joint becoming unyieldingly locked when the beam is lowered, whereby the plough may be permitted to yield while passing through stony soil, substantially as described. 9th. In a wheel-plough, the combination with a frame and supporting wheels therefor, of forwardly inclined bails pivoted to the frame so as to swing up and down thereon, one or more plough beams supported by the bails so as to be raised or lowered therewith, a lifting-lever, a connection between said lever and the beam or beams, mechanism adapted to hold the beams raised, together with a spring connected to the beam and frame adapted to have power stored therein when the beam or beams are lowered so as to assist in raising the plough or ploughs, substantially as described. 10th. In a wheel plough, the combination with a frame and supporting wheels therefor, of one or more beams

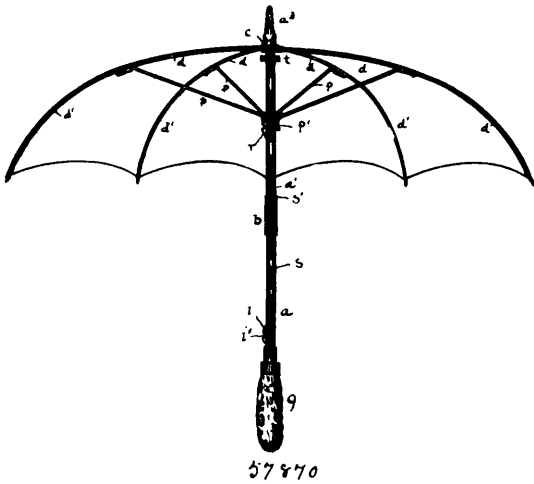
held so as to be raised or lowered upon said frame, means for raising the beams, together with automatically actuated mechanism adapted to hold the beams in an elevated position, or to be released without the assistance of a hand lever, so as to permit the operator to have his hands entirely free to control the horses, substantially as described. 11th. In a wheel plough, the combination with a frame and supporting wheels therefor, of one or more beams held so as to be raised or lowered upon said frame, a latch pivoted to the beam, and a rod or catch pivoted to the frame adapted to be engaged by the latch when the beam is raised, whereby the ploughs may be rigidly held above the ground, substantially as described. 12th. In a wheel plough, the combination with a frame and supporting wheels therefor, of bails pivoted to the frame so as to swing up and down thereon, bail boxes fitting over a portion of the bails and secured to the plough-beam so that the latter will raise and lower with said bails, a spring-pressed latch pivoted to the beam adjacent to one of said bail boxes, and a rod or catch pivoted at one end to the frame and having its other end passing through one of the boxes and adapted to engage the end of the latch when the beam is raised, whereby said beam may be automatically held in a raised position, substantially as described. 13th. In wheel plough, the combination with a suitable frame, and a plough or ploughs mounted thereon, of a rear furrow wheel and an axle therefor rotatably journaled upon the frame, a front furrow-wheel and axle therefor also journaled upon the frame, a latch adapted to prevent rotary movement of the axle of the rear furrow-wheel, a sliding-plate, and a collar rotating with the front furrow-wheel axle adapted to engage said sliding-plate when the axle is rotated and move the plate longitudinally, whereby the rear furrow-wheel axle may be automatically released so as to oscillate freely in its bearing when the front furrow-wheel is rotated, substantially as described. 14th. In a wheel plough, the combination with a suitable frame, of a bracket secured to said frame, an axle journaled in the bracket, a wheel arranged upon the axle, a bent bar loosely connected to the axle and supporting the frame thereupon, and a lever pivoted to the support and having its end connected to the frame so as to raise or lower said frame and bracket upon the axle, substantially as described. 15th. In a wheel-plough, the combination with a suitable frame, of a bracket secured to said frame, an axle provided with a wheel at its lower end and journaled in the bracket, a bent bar loosely connected to the axle and supporting the frame thereupon, a segment secured to the support, a lever pivoted to the support and provided with mechanism adapted to engage the teeth of the segment, and a connection between the end of the lever and the frame so as to raise or lower said frame on the axle when the lever is operated, substantially as described. 16th. In a wheel plough, the combination with a suitable frame and a plough or ploughs mounted thereon, of a rear furrow-wheel and an axle therefor journaled upon the frame, a lock or plate secured to the axle, a latch adapted to engage the plate so as to prevent rotary movement of the axle, a front furrow-wheel and axle therefor also journaled upon the frame, a sliding-plate, and a collar slidingly held on the front furrow-wheel axle so as to rotate therewith and having lugs adapted to engage and move said sliding-plate when the axle is rotated, whereby the axle of the rear furrow-wheel may be automatically released so as to oscillate freely in its bearing when the front furrow-wheel axle is rotated, substantially as described. 17th. In a wheel plough, the combination with a suitable frame and a plough or ploughs mounted thereon, of a bracket secured to the rear portion of the frame, an axle provided with a wheel journaled in the bracket, a lock or plate secured to the axle, a spring-latch adapted to engage the plate so as to prevent rotary movement of the axle, a pawl pivoted to said plate adapted to prevent engagement of the latch with the plate, a front furrow-wheel and an axle therefor journaled on the frame, together with mechanism operated by the front furrow-wheel axle for disengaging said latch from the lock or plate when the pawl is not in use, whereby the axle of the rear furrow-wheel may be automatically released so as to oscillate freely in its bearing when the front furrow-wheel axle is rotated, substantially as described. 18th. In a wheel plough, the combination with a suitable frame and a plough or ploughs mounted thereon, of a bracket secured to the rear portion of the frame, an axle provided with a wheel journaled in the bracket, a lock or plate secured to the axle, a latch adapted to engage said lock or plate to prevent rotary motion of the axle, a bracket secured to the forward portion of the frame, a front furrow-wheel and an axle therefor also journaled in said bracket, a plate slidingly held upon the bracket, a rod connecting the sliding-plate to the latch of the rear furrow-wheel, a collar slidingly held on the front furrow-wheel axle so as to rotate therewith and adapted to engage said sliding-plate when the axle is rotated, a tongue, and connections between the tongue and the front furrow-wheel axle for rotating the latter when said tongue is shifted laterally, whereby the axle of the rear furrow-wheel may be automatically released so as to oscillate freely in its bearing when the front furrow-wheel axle is rotated, substantially as described.

**No. 57,870. Folding Umbrella. (Parapluie pliant.)**

François H. Genereux, Armand Mignault and Lonis Joncas, all of Salem, Mass., U.S.A., 21st October, 1897; 6 years (Filed 15th September, 1897.)

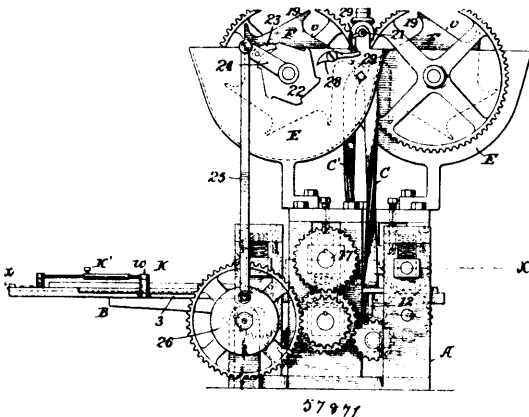
Claim.—1st. In a folding umbrella, a rib made in two sections its upper section of which is pivoted at the movable end to the lower

rib-section at a point removed from its inner end, a block mounted upon and movable endwise of said lower rib-section, between the



inner end and its pivotal connection to the upper rib-section, a spring mounted on said lower rib-section between said movable block and the pivotal connection of said rib-sections, a locking catch carried by said upper rib-section above its pivotal connection to the lower rib-section, a locking pin carried by said movable block and adapted to engage said locking latch when said rib-sections are in extended positions, and a stretcher pivoted at one end to said movable block, and adapted to be operated in the usual manner. 2nd. In a folding umbrella, the combination with a jointed stick, a top notch mounted thereon, and a runner movable endwise thereof, of rib-section *d* provided with the locking-latch *j*, and the lug or enlargement *j*<sup>1</sup>, the rib-section *d*<sup>1</sup>, the block *k* secured in a fixed position on said rib-section at a short distance from its inner or upper end and pivoted to the lug or enlargement *j*, the block *k* movably mounted on said rib-section *d*<sup>1</sup> at its inner end, the spring *m*, the pin *o* set in the block *k* and the stretcher *p* pivoted at one end to the block *k* and at its other to the runner on the stick. 3d. The combination in a folding umbrella, of a stick jointed at or near the middle of its length, a handle provided with a cylindrical chamber extending nearly through its length and with a slot out through its side, a tubular bushing set in a fixed position in the open end of said chamber fitted to and movable endwise of the stick and provided with an opening in its side registering with the slot in the side of said handle, a locking-lever pivoted in the slot of said handle, and provided with a lug or pin to engage an opening in the stick-section, the lower stick-section provided with a radial opening or recess to receive said lug or pin, and a spring to force said lug or pin into engagement with said opening or recess.

**No. 57,871. Machine for Applying Tips.**  
(*Machine à poser les pointes.*)

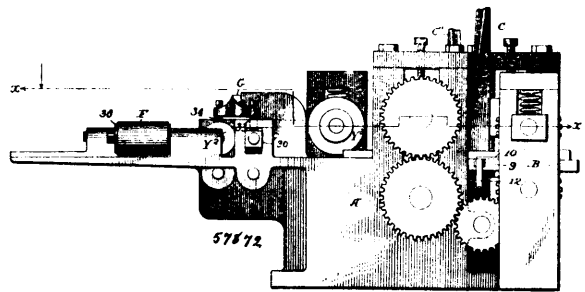


The Warner Brothers Company, New York, State of New York, assignee of Coles Anson Seeley, Bridgeport, Connecticut, both in the U.S.A., 21st October, 1897; 6 years. (Filed 9th September, 1897.)

*Claim.*—1st. In a tipping machine, the combination with means for feeding blades successively first in one direction and then in another, chutes or holders for tips arranged to feed the tips successively into position opposite the advancing ends of the blades, and means for compressing the tips upon opposite ends of the blades,

substantially as described. 2nd. In a tipping machine, the combination of a table provided with a channel, a chute arranged to communicate with said channel to supply tips thereto, a hopper for said tips, devices for feeding the tips from the hopper to the chute, and pressing rollers arranged beyond the chute to compress the tips upon the ends of the blades passing through the channel, substantially as described. 3rd. In a tipping machine, the combination with chutes or holders for containing tips, means for feeding blades successively to present first one end and then the other of each blade to the tips in the holders, and means for compressing the tips upon the ends of the blades, substantially as described. 4th. The combination, in a tipping machine, of a table provided with a longitudinal channel for receiving the blades to be tipped, means for feeding the blades along the channel, a chute for containing the tips communicating with the channel, and pressure rollers arranged beyond the chute to compress the tips upon the ends of the blades passing through the channel, substantially as set forth. 5th. The combination with the channelled table *B*, and chute *C*, of feed-wheels *e*, *f*, and intermediate pressure-wheels *c*, *c*<sup>1</sup>, one having a groove and other a rib, substantially as set forth. 6th. The combination, with the table *B*, having a longitudinal rib *6*, of the movable bar *7*, having the overhanging flange *8*, yielding means for pressing the bar towards the rib and holding it downward, a chute communicating with the channel between the bar and rib, and feed-wheels and presser-wheels, substantially as set forth. 7th. In a tipping machine, the combination of the devices for applying and pressing tips upon blades and for feeding the blades, of a chamber *j*, and means for moving the blades laterally and successively in said chamber, substantially as set forth. 8th. The combination, with the two sets of devices for applying and compressing tips and for feeding the blades in opposite directions, of the intermediate chamber *h* receiving the blades from one tipping mechanism, and means for successively feeding the blades towards the other tipping mechanism, substantially as set forth. 9th. The combination, with the table *B*, and its chamber *j*, and means for moving the blades laterally in said chamber, of two sets of tipping mechanism, a slide *k*<sup>3</sup>, and a lever having an arm *3* extending into the chamber *j*, and connecting to operate the slide *k*<sup>3</sup>, substantially as set forth. 10th. The combination, with a hopper containing tips or other articles, of a chute or holder communicating with the hopper, mechanism within the hopper including a rotating carrier for transferring tips from the hopper to the chute, and devices for transferring tips from the chute back into the hopper to constantly maintain a clear space in the chute opposite the carrier, substantially as described. 11th. The combination, with the blade and tip-feeding devices, of compressor wheels arranged beyond the tip-feeding devices to compress the tips upon the end of the blades, substantially as described. 12th. In a tipping machine, the combination with means for feeding blades in one direction, of devices for applying and securing a tip to one end of the blades, means for feeding the blades in the opposite direction, mechanism for transferring the blades into position to be engaged by said means, and devices for applying and securing a tip to the untipped end of the blades, substantially as described.

**No. 57,872. Machine for Putting Tips.**  
(*Machine à poser les pointes.*)



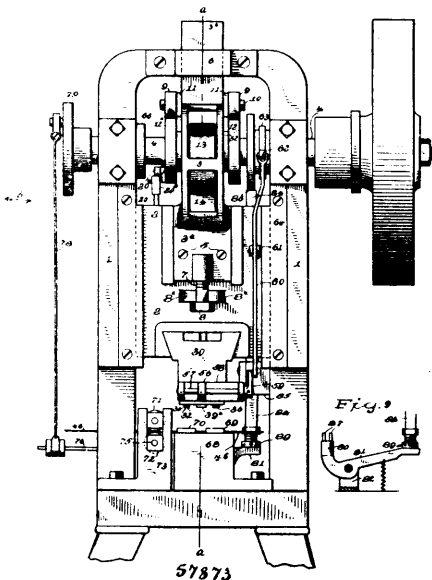
The Warner Brothers Company, New York, State of New York, assignee of Coles Anson Seeley, Bridgeport, Connecticut, both in the U.S.A., 21st October, 1897; 6 years. (Filed 9th September, 1897.)

*Claim.*—1st. In a tipping machine, the combination with means for feeding blades in one direction, of devices for applying and securing a tip to one end of each blade, means for feeding the blades in the opposite direction and a transverse friction feed device for transferring the blades into position to be engaged by said latter means, and devices for applying and securing tips to the untipped ends of the blades, substantially as described. 2nd. In a tipping machine, the combination with means for feeding blades in one direction, of devices for applying and securing a tip to one end of each blade, means for feeding the blades in the opposite direction, and a travelling belt for transferring the blades into position to be engaged by said latter means, and devices for applying and securing tips to the untipped ends of the blades, substantially as described. 3rd. In a tipping machine, the combination with means for applying and securing a tip to one end of each blade, of devices for independently transferring the blades laterally, means for feed-

ing each blade to the transfer devices, means for feeding each blade in the opposite direction, said means being operated alternately with said other feeding means, and mechanism for applying and securing a tip to the untipped end of the blade, substantially as described. 4th. In a tipping machine, the combination with mechanism for applying and securing a tip to one end of a blade, of mechanism for applying a tip to the opposite end of the blade, devices for transferring the blade from one tipping mechanism to the other, feed wheels for feeding the blade from the first tipping mechanism to the transferring devices, means for separating and for moving the said wheels together for feeding the blade from the transferring devices to the second tipping mechanism, and means for separating and for moving the wheels together, substantially as described. 5th. The combination of the compressing rolls, the chute for supplying the tips, and a channel contracting laterally between the chute and the rolls, substantially as described.

**No. 57,873. Metal Blanking and Studding Machine.**

(Machine à poinçonner et estamper.)



The Warner Brothers Co., New York, State of New York, assignee of James William Grant, Bridgeport, Connecticut, U.S.A., 21st October, 1897; 6 years. (Filed 9th September, 1897.)

*Claim.*—1st. The combination of mechanism for feeding a metallic strip and for punching a hole therein, of means for feeding a section of wire through the hole in the strip and co-operating devices upon opposite sides of the strip for upsetting the wire section upon both sides thereof, one of said devices comprising gripping jaws moving in the line of the wire, and the other comprising a reciprocating header, substantially as described. 2nd. The combination with a die block having a reciprocating header, of an anvil and means for reciprocating it towards and away from the die block, devices for punching an opening in a strip, means for feeding the strip upon the die block to bring its opening into alignment with the header, and mechanism for feeding a section of wire beneath the anvil and in alignment with the opening in the strip, substantially as described. 3rd. The combination with the die-block, a reciprocating header, and a reciprocating anvil carrying a punch, of means for feeding a strip upon the die block, wire feeding mechanism, and devices for severing a section from the wire and for moving said section beneath the reciprocating anvil in alignment with the hole in the strip, substantially as described. 4th. The combination with a die-block, a punch, and a strip feeding mechanism, of a reciprocating gate and an anvil, device for feeding a wire and severing a section thereof and transferring the severed section beneath the anvil in alignment with the hole in the strip, all carried upon the gates, substantially as described. 5th. The combination with mechanism for feeding a metal strip, for punching openings therein, and for cutting blanks therefrom, of devices for feeding wire and for securing sections thereof to the strip before the blanks are cut from said strip, substantially as described. 6th. The combination with mechanism for feeding a metallic strip, of punches provided with convex shoulders adapted to punch openings in the strips, means for feeding a section of wire through the opening in the strip and for upsetting the section on opposite sides of the strip and within the depression formed by the punches, the upset portion of the wire section within the depression being flush with the face of the strip, substantially as described. 7th. The combination, in a machine for forming studded blanks, of a movable support carrying a wire-feeding device, piercing and blanking tools, transversely operating tools

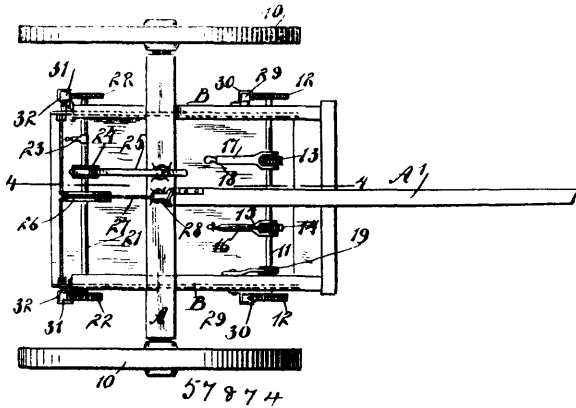
for severing sections from the wire and carrying them out of the wire-feeding line, said support adapted to move forward, insert and secure such sections in holes formed in a metal strip, and means, substantially as shown, whereby a partial release is given to one of the section carrying tools to prevent dragging on the sections when the movable support returns, substantially as described. 8th. In a blanking and studding machine of the character described, the combination with a stationary die block, a movable header therein, of a gate or other like movable support carrying independent wire-feeding mechanism, piercing and blanking punches, cut-off and stud blank carrying tools, said cut-off and stud blank carrying tools and punches placed between the wire feeding mechanism and the die block and header, so that, by the combination and co-operation of the above named elements holes are pierced in a metal strip, the wires are fed forward, stud blanks cut therefrom and such blanks transferred in line with said holes and secured therein, and an article embracing such studs blanked out of such metal strip, substantially as set forth. 9th. In a blanking and studding machine of the character described, the combination with a stationary die block having piercing and blanking dies therein, a heading tool operatively placed intermediate of said piercing and blanking dies, a gate or other like movable support carrying piercing and blanking punches, cutting off and stud blank carrying tools intermediate of said punches, a wire-feeding device on said movable support, said punches, cutting off and stud blank carrying tools intermediate of the wire-feeding device and the said die block and header, all combined so as to pierce holes in a metal strip, cut off sections of the wires to form studs and transfer such sections out of the wire-feeding line, and in line with such holes, insert and secure them therein, and blank out a corset eye or other like article embracing such studs, from the said metal strips, substantially as described. 10th. The combination in a blanking and studding machine, of a wire-feeding device consisting of stationary and movable jaws having an intermediate spring tongue, a movable gate on which such wire feeding device has an independent movement, a tool-holder carrying piercing and blanking tools attached to such gate, cut-off and stud-carrying tools in said holder, a clamp having a finger at right angles thereto to engage with and prevent the wire moving back when the wire-feeding device is retreating, for the purpose set forth. 11th. The combination in a blanking and studding machine, of a wire-feeding device, a tool-holder carrying piercing and blanking punches, tools for cutting a projected section of wire and carrying such section out of the wire feeding line, a die block and header, such tool-holder section cutting and carrying tools placed between the wire-feeding device and said die-holder and header, for the purpose described. 12th. In a combined blanking and studding machine, a wire-feeding device having an independent movement on a movable support, a tool-holder having piercing and blanking tools for cutting a section (to form a stud) from the projecting end of the wire and carrying such stud out of the feeding line of such wire and in line with the piercing tools, a die block, such tool-holder and a section cutting and carrying tools placed intermediate of the wire-feeding device and the said die block, a header to engage the projecting end of the wire section or stud, combined with an upper anvil to engage the opposite end of the stud, which, combined with the side pressure of the section-carrying tools, will form a head and shoulder on such stud, for the purpose set forth. 13th. The herein described machine for blanking and studding, comprising, in combination, a movable gate, a yoke attached to said gate and embracing the driving shaft, the upper end of such yoke adjustably secured to the machine frame, rolls on such yoke to engage lifting cams on such shafts, said gate carrying an adjustable roll to engage a cam on such shafts-wire-feeding device on such gate, a tool-holder in the lower end of such gate and carrying piercing and blanking punches, transversely operating tools for cutting a section from the projecting end of the wire and conveying such section or stud blank out of the feeding line of such wire and in line with the piercing tools, a die-block and header, all combined so that when the wire feed had projected a section of wire sufficient to form a stud, the cut-off and stud-carrying tools will sever such section and carry it out of the feeding line of the wire and in line with holes formed by the piercing tools, in a metal strip on the die-block, and such stud blanks headed from below and shoulders formed on the stud above the metal strip, for the purpose set forth. 14th. In a machine for forming studded blanks, the combination of sheet metal feeding, piercing and blanking devices, wire feeding, cutting, transferring and upsetting devices, co-operating so as to pierce stud holes in a metal strip, feed the wires a predetermined length, cut sections therefrom, transfer such sections out of the wire-feeding line and in line parallel with said stud holes, said strip fed forward so as to bring such holes in vertical alignment with said sections, insert and secure such sections therein to form studs, feed the metal strip, containing such studs, to the blanking tools and blank an article embracing such studs therefrom, substantially as set forth.

**No. 57,874. Scraper. (Grattoir.)**

George E. Richardson, John T. Richardson, both of Lake Ann, and Quincy E. Boughey, Traverse, all in Michigan, U.S.A., 21st October, 1897; 6 years. (Filed 13th October, 1897.)

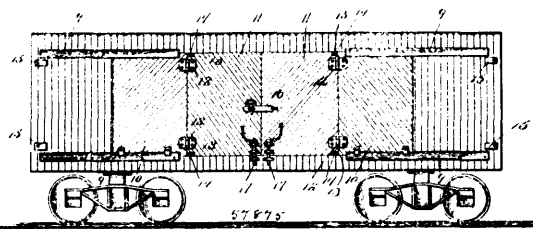
*Claim.*—1st. The combination with a wheeled support, a forward and a rear rock-shaft journaled in the said support, each shaft being provided at each end with a pinion, ratchet-wheels secured upon the

forward shaft, having their teeth inclined in opposite directions, levers provided with latches engaging the said ratchet-wheels, and



a locking device for the said forward shaft, of a lever connected with the rear shaft, a lever mounted upon the said support, a pulley located on the rear shaft, and a chain attached to the said lever on the support and passed over the said pulley, a scraper, racks attached to the forward and rear side portions of the scraper, having guided movement upon the support, the said racks being in engagement with the said pinions, and a removable end-gate located at the rear portion of the scraper and connected with the aforesaid chain, as and for the purpose specified. 2nd. The combination of an axle, a frame carried by the axle, two shafts journaled in the frame, a pinion fixed to each end of the shaft, means on each shaft by which they may be turned, pawl and ratchet devices for holding the shafts stationary, a scoop located beneath the frame, rack-bars fixed to the scoop and respectively meshing with the pinions, a lever fulcrumed on the axle, a chain connected to the lever, a pulley carried by one shaft and over which the chain passes, and a sliding gate for the scoop, the gate having the chain connected thereto, substantially as described. 3rd. The combination of an axle, a frame carried by the axle, two shafts journaled in the frame, a pinion carried by each end of each shaft, two oppositely disposed ratchet-wheels fixed to one shaft, a pawl-lever for each ratchet-wheel, means for holding the shafts in position, a scoop located below the frame, rack-bars carried by the scoop and respectively meshing with the pinions, a lever fulcrumed on the axle, a chain connected to the lever, a pulley carried by one shaft and over which the chain passes, and a vertically movable gate located in slideways at the rear of the scoop, the gate being connected with the chain, substantially as described.

**No. 57,875. Box Car. (Char à marchandises.)**

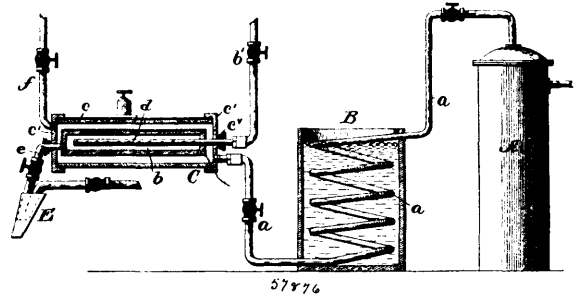


Anson W. Stebbins, Cameron, Mississippi, Walter G. Kirkpatrick, Nashville, Tennessee, Eli Wise and Edward M. Stebbins, both of Abbeville, Louisiana, all in the U.S.A., 21st October, 1897; 6 years. (Filed 19th August, 1897.)

*Claim.*—1st. A box-car having a longitudinally-extended door-opening in its side, in combination with a horizontal beam bounding the top of the door-opening, and a series of trusses interposed between said beam and the top of the car and connected thereto, said trusses being formed of continuous bars bent to the desired form and interlaced with each other, substantially as and for the purpose described. 2nd. In a box-car having a longitudinally-extended door-opening in its side, the combination with the door-post and the end post of the car, of a horizontal beam extending between said posts, and a series of reversely-inclining braces crossing each other and interposed between said posts above and below the horizontal bar, said braces being bent as described to form right angled end portions to fit snugly in the corners and form abutting surfaces for the vertical posts and horizontal beams, substantially as specified. 3rd. A car-door consisting of two sections hinged together and one or both provided in their meeting edges with a notch, in combination with a stop secured to the car-body and entering said notch when the door is closed, substantially as and for the purpose described. 4th. A car-door consisting of a sliding section adapted to close a portion of the door-opening, and a hinged section connected to the sliding section and adapted to close another portion of the

door-opening, said hinged section being formed with a notch, in combination with a stop on the car-body entering said notch in the door when closed, substantially as described. 5th. A car-door, consisting of a sliding section adapted to close a portion of the door-opening, and a hinged section connected to the sliding section and adapted to close another portion of the door-opening, in combination with means on the car-body independent of the ordinary locking devices for engaging the hinged section when closed and preventing the sliding of the door-sections, but arranged to permit the sliding of the sections when the hinged section is swung outward, substantially as described.

**No. 57,876. Apparatus for Generating Ozone Gas. (Appareil pour générer le gaz ozonisé.)**



The Electric Rectifying and Refining Co., Camden, New Jersey, assignee of Marshall Pridham, Philadelphia, Pennsylvania, both in the U.S.A., 21st October, 1897; 6 years. (Filed 29th December, 1896.)

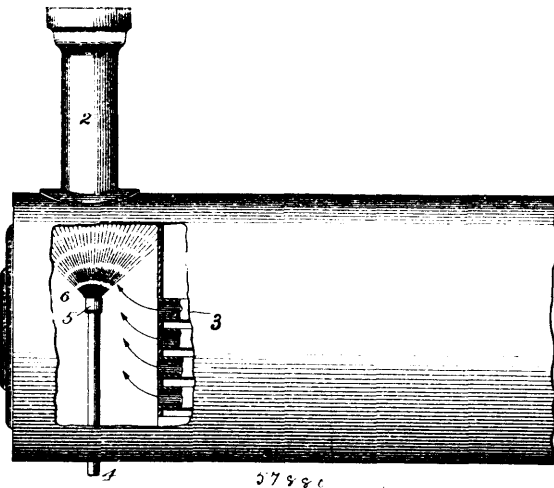
*Claim.*—1st. In an apparatus for generating ozone gas, the combination of separated casings, one being dielectric, each provided with a thin sprinkled coating of powdered or granular conducting material, suitable for producing an electrical brush-discharge, the dielectric being between the coatings, means for causing a flow of oxygen through the space between said casings, and means for conveying an electric current to one and away from the other of said coatings substantially as specified. 2nd. In an apparatus for generating ozone gas, the combination of separated casings, one being dielectric, and each having a thin sprinkled coating of powdered or granular conducting material suitable for producing an electrical brush discharge, the dielectric being between the two coatings, means for conveying an electrical current to one and away from the other of said coatings, means for causing a flow of oxygen gas through the space between the casings, and means for reducing the temperature of said gas before it enters the generator, substantially as specified. 3rd. In an apparatus for generating ozone gas, the combination of separated casings, one being dielectric, and each having a thinly sprinkled exterior coating of powdered or granular conducting material suitable for producing an electrical brush discharge, means for conveying an electric current to one and away from the other of said coatings, means for causing a flow of oxygen gas through the space between the casings, means for reducing the temperature of said gas before it enters the generator, and means for maintaining such low temperature of the gas while it is passing through the generator, substantially as specified. 4th. In an apparatus for generating ozone gas, the combination of an inner and outer casing separated from each other, the outer casing being dielectric, and each having a thinly sprinkled exterior coating of powdered or granular conducting material suitable for producing an electrical brush-discharge, with an inlet for admitting oxygen gas to the space between the inner and outer casings, an outlet from said space, and connections between the conducting coatings and a suitable generator of electricity, substantially as specified. 5th. In an apparatus for generating ozone gas, the combination of the inner and outer casing mounted so as to provide a space between them, the outer casing being dielectric, and each having a thinly sprinkled exterior coating of granular or powdered conducting material suitable for producing an electrical brush discharge, connections between said coatings and an electrical generator, a pipe for supplying oxygen gas to the space between the two casings, and a refrigerating tank through which the oxygen supply pipe passes on its way to the generator, substantially as specified. 6th. In an apparatus for generating ozone gas, the combination of inner and outer casings mounted so as to form a space between the two, the outer casing being dielectric, and each having an external coating of granular conducting material suitable for producing an electrical brush discharge, connections between said external coatings and a suitable source of electricity, a perforated pipe extending within the inner casing and having connection with a supply of cool-





and around its centre circumference with slots or grooves which extend in line with said projection, substantially as shown and described. 2nd. A bottle provided with a neck which is enlarged at its lower end, which is provided with an inwardly directed rib or projections, said neck being also provided at its inner end with inwardly directed portions whereby an annular shoulder is formed, a packing ring placed beneath said annular shoulder, and a stopper which is spherical in form and which is adapted to rest upon the inwardly directed ribs or projections at the bottom of the neck, said stopper being provided at its upper side with a conical projection, and around its centre circumference with slots or grooves which extend in line with said projections, and at its lower side with a ball or body which serves as a weight, substantially as shown and described. 3rd. A bottle provided with a neck which is enlarged at its lower end and which is provided with inwardly directed ribs or projections, said neck being also provided at its upper end with an inwardly directed portion whereby an annular shoulder is formed, a packing ring placed beneath said annular shoulder, and a stopper which is spherical in form, and which is adapted to rest upon the inwardly directed ribs or projections at the bottom of the neck, said stopper being provided at its upper side with a conical projection, and around its centre circumference with slots or grooves which extend in line with said projections and at its lower side with a ball or body which serves as a weight, and the enlarged portion of the neck being provided at one side with an inwardly directed circular rib or projection, substantially as shown and described.

**No. 57,880. Spark Extinguisher and Blower.**  
(*Extincteur d'étincelles.*)



George A. Ingels, Pleasant Hill, Missouri, U.S.A., 22nd October, 1897; 6 years. (Filed 16th October, 1897.)

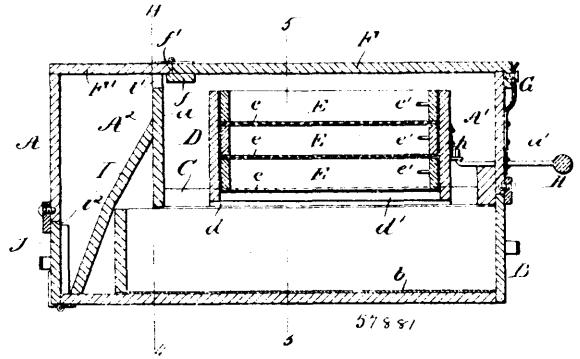
*Claim.*—1st. A combined spark-extinguisher and blower for locomotives, comprising a pipe arranged vertically below the smoke-stack of, and within, the boiler, and a perforated cap or nozzle mounted upon the upper end of said pipe and adapted by spraying water or steam upwardly into the smoke at the mouth of the stack to create a dense fog, substantially as described. 2nd. A combined spark-extinguisher and blower for locomotives, comprising a pipe arranged vertically below the smoke-stack of, and within the boiler, and a cap or nozzle provided with an arched segmental end having numerous orifices which extend substantially at right-angles to the plane of the surface of said segment, and adapted by spraying water or steam upwardly into the smoke at the mouth of the stack to create a dense fog, substantially as described. 3rd. In combination with a locomotive boiler, a pipe projecting upwardly into the boiler to about the plane of the upper line of tubes, and located vertically below the smoke-stack, through which water or steam is forced upwardly under pressure, and a cap screwed down upon the upper end of said pipe and provided with a segmental top provided with numerous fine orifices, which extend substantially at right angles to the surface of said segment, substantially as and for the purpose described.

**No. 57,881. Sifting Apparatus.** (*Tamis.*)

Francis Henry Perry, Fishkill Landing, New York U.S.A., 22nd October, 1897; 6 years. (Filed 15th October, 1897.)

*Claim.*—1st. An improved sifting apparatus, comprising a casing divided by a partition into a front sifting compartment and a rear dust compartment, said partition having a slot or opening and the casing carrying interior guides or tracks below which is arranged a drawer, a sifter frame arranged to operate in the upper portion of the sifting compartment upon said guides, and a set of separate and

removable sieves adapted to be carried by said sifter frame and respectively provided with sieve bottoms of varying sizes of mesh,



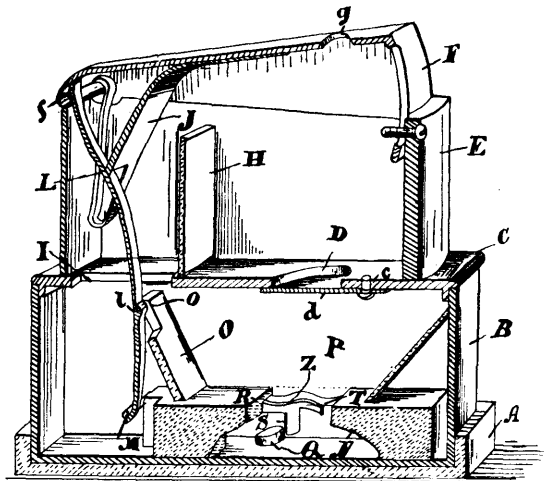
substantially as and for the purpose set forth. 2nd. An improved sifting apparatus, comprising a casing, a sifter frame mounted and adapted to be reciprocated therein, and a set of separate and removable sieves respectively having sieve bottoms of varying sizes of mesh, said sieves being adapted to be relatively arranged within and carried by the sifter frame in position one above the other with the varying sizes of mesh bottoms graded downwardly, substantially as and for the purpose set forth. 3rd. An improved sifting apparatus, comprising the casing having the sifting compartment within which are arranged longitudinal right angular guides or tracks and carrying a drawer below the latter, and a sifter frame adapted to carry sieves and operate within the compartment above said tracks, said sifter frame being provided with downwardly projecting metallic flanges at its side edges forming a bearing upon said tracks, substantially as and for the purpose set forth. 4th. An improved sifting apparatus, comprising a casing divided into a front sifting compartment and a rear dust compartment and having a vertical interior partition provided with an opening forming a connection between the top of the two compartments, said partition extending downwardly to longitudinal guides or tracks within the sifting compartment, a drawer occupying the bottom portion of said sifting compartment below said tracks and of greater length than the compartment proper, the rear end of said drawer being accommodated under the partition, substantially as set forth, and a sifter mechanism mounted upon and operating on said tracks above the drawer, substantially as and for the purpose set forth. 5th. An improved sifting apparatus, comprising a casing divided by a partition into a front sifting compartment and a rear dust compartment, said partition having a slot or opening at the top, a drawer occupying the bottom of the sifting compartment, sieve devices occupying the top portion of the sifting compartment above said drawer and adapted to be reciprocated therein, and an inclined front or bottom extending downwardly and rearwardly within the dust compartment and leading to an opening at the rear end of said incline, substantially as and for the purpose set forth. 6th. An improved sifting apparatus, comprising a casing divided into a front sifting compartment and a rear dust compartment by a partition having a slot or opening at its top, the dust compartment having a rearwardly and downwardly inclined bottom extending to a bottom opening, longitudinal tracks within the sifting compartment, a drawer occupying the lower portion below said tracks, a removable sifting frame adapted to reciprocate upon said tracks, and a set of sieves having sieve bottoms of varying sizes of mesh, said sieves being arranged within and carried by the sifter frame, substantially as and for the purpose set forth.

**No. 57,882. Match Box and Cigar Cutter.**  
(*Boîte à allumettes et coupe-cigares.*)

Joseph Coyle, Ottawa, Ontario, Canada, 23rd October, 1897; 6 years. (Filed 15th September, 1897.)

*Claim.*—1st. In a combined match safe and cigar cutter in combination, a box provided with a suitable sliding block, a transverse groove in such block, an ejecting hole in the front on a level therewith, a hopper situated above such sliding block, an ejecting spring situated at the side of the sliding block, a lug secured to the bottom of the box, a box situated above such hopper provided with a spring-controlled top, and means connected to such top for operating the sliding block previous to ejecting a match, as and for the purpose specified. 2nd. In a combined match safe and cigar cutter in combination, a box provided with a suitable sliding block, a transverse groove in such block, and ejecting hole in the front on a level therewith, a hopper situated above such sliding block, an ejecting spring situated at the side of the sliding block, a lug secured to the bottom of the box, a box situated above such hopper provided with a spring-controlled top, means connected to such top for operating the sliding block previous to ejecting a match, a hole in the spring-controlled top for receiving the tip of a cigar, a spring with a cutting edge

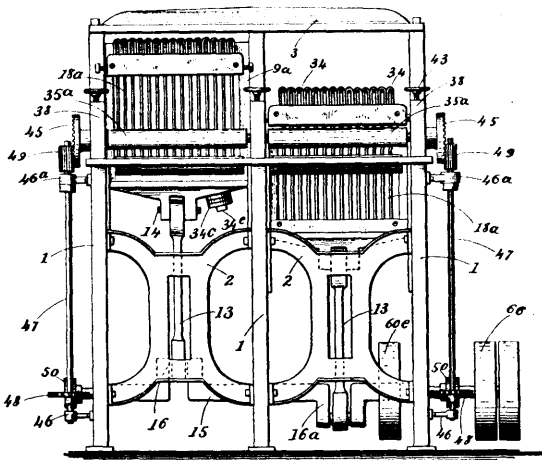
designed to be brought past the inside of the hole to sever the tip of a cigar when inserted, a chamber in such upper box for receiving



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the severed tips, provided with a pivoted plate for uncovering a hole in the bottom of such chamber, as set forth and for the purpose specified.

No. 57,883. Sawing Machine. (Scierie.)



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Lorenzo Aloysius Denther, Buffalo, New York, U.S.A., 23rd October, 1897; 6 years. (Filed 28th June, 1897.)

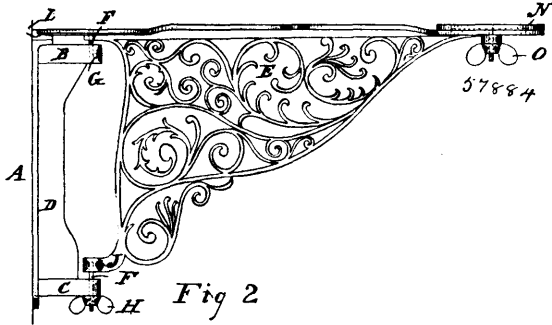
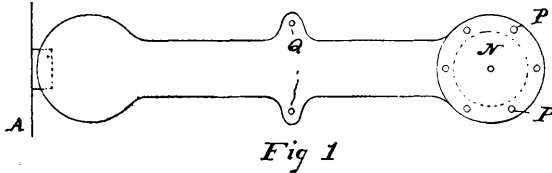
Claim.—1st. In a sawing machine, the combination with the saws, of spacing plates placed between said saws and having bevelled edges forming inclined slideways down which the sawdust collected between the saws readily travels, as set forth. 2nd. In a sawing machine the combination with the saw table, provided with two longitudinal grooves, of a series of guide plates adjustably and removably secured to said table by screw devices passed through said grooves, as set forth. 3rd. In a sawing machine, the combination with the saw table, provided with two longitudinal grooves, of a series of guide plates adjustably and removably secured to said table by screw devices passed through said grooves, and springs secured to one side of some of the plates to hold the strips of material against the opposite or companion guide, as set forth. 4th. In a sawing machine, the combination of a saw table having slots and guide plates provided with springs and adjustably secured in said slots, as set forth. 5th. In a sawing machine, the combination with the reciprocating saws, of a lower saw guide having fingers projecting between the saws, and an upper saw guide also provided with fingers projecting between the saws, and vertically adjustable toward or from said lower guide, as set forth. 6th. In a sawing machine, the combination with the reciprocating saws and the supporting saw gates, of a series of spacing plates placed between the saws, each provided with a depression and a projecting nose, a supporting portion fitting in said depression, a cross bar provided with a groove fitting over said nose and screw means for rigidly securing said portion and cross bar to the saw gates, as set forth. 7th. In a sawing machine, the combination with the frame, and the reciprocating saws of devices for removing the sawdust between and smoothing the side edges of the slats as they come from the saws, as set forth. 8th. In a sawing machine, the

combination with the frame, the reciprocating saws, and the saw table, provided with an opening, of a shaft mounted in said table and passing through said opening, and one or more circular saws adjustably supported on said shaft, as set forth. 9th. In a sawing machine, the combination with the frame, the reciprocating saws, and the saw table, provided with an opening, of a shaft mounted in said table and passing through said opening, and one or more circular saws adjustably supported on said shaft, said saws being provided with a series of slots or openings and having the side edges of said slots slightly set or bent alternately to each side to afford means to remove the sawdust and smooth the side edges of the slats as they come from the sawing machine, as set forth. 10th. In a sawing machine, the combination with the supporting frame, and the reciprocating saws, of a planing device for removing and smoothing the roughened lower edge left by the reciprocating saws. 11th. In a sawing machine, the combination with the frame and a table, of a saw guide placed between the front and rear portions of the table, and a second saw guide above the table consisting of a vertically adjustable cross bar having brackets provided with slots through which screw bolts pass to secure it to the frame, and a series of wooden fingers secured to said cross bar, as set forth. 12th. In a sawing machine, the combination with the supporting frame, of two saw gates supported in slideways in said frame, a series of reciprocating saws mounted in each saw gate, a crank shaft having cranks extending therefrom in diametrically opposite directions and connecting rods connecting said cranks to the saw gates, whereby one gate is ascending while the other is descending and vice versa, as set forth. 13th. In a sawing machine, the combination with the supporting frame, the saw gates, the reciprocating saws, and the transverse bars secured to the top of the front portion of said gates and provided with ribs, of a series of spacing plates hung from said ribs, and interposed between the saws, as set forth. 14th. In a sawing machine, the combination with the supporting frame, the saw gates, the reciprocating saws, and an upper and lower cross bar secured to the saw gates, of a series of upper spacing plates depending from the upper bars and interposed between the saws, and a series of lower spacing plates projecting from the lower bars, and interposed between the saws, as set forth. 15th. In a sawing machine, the combination with the saw gates, the reciprocating saws, and a transverse bar secured to the top of the front portion of each saw gate and provided with an upper and lower rib, of a series of spacing plates hung from said ribs, as set forth. 16th. In a sawing machine, the combination with the supporting frame, and the lower feed rollers, of the upper feed rollers supported in a movable box, and adjustable toward or from the lower feed rollers, and springs for forcing said upper feed rollers toward the lower feed rollers, as set forth. 17th. In a sawing machine, the combination with the supporting frame, its table and the lower feed rollers mounted in said table, so that their upper peripheral surfaces will be slightly above its surface, of the upper feed rollers mounted in a box movably supported by the frame, springs for forcing said upper feed rollers toward the lower feed rollers, and means for varying the tension of said spring to regulate the pressure of the rollers upon the material, as set forth. 18th. In a sawing machine, the combination with the supporting frame, of the feed rollers adjustably mounted therein, an operating crown wheel mounted on each of the feed roller shafts, a power transmitting rod connected at one end with the driving shaft, and an elongated pinion at the opposite end of said rod and in engagement with the crown wheel and of sufficient length to allow for the adjustment of the feed rollers without disengagement from the crown wheels, as set forth. 19th. In a sawing machine, the combination with the supporting frame, the saw gates mounted in slideways in said frame, the reciprocating saws supported in said saw gates and having their tops inclining slightly forward, a driving shaft, two cranks extending from said shaft in diametrically opposite directions, rods for connecting each saw gate to its respective crank, a cam wheel mounted on each end of the driving shaft, feeding rollers supported in the machine frame, and rods connecting said feed rollers with the cam wheels to intermittently operate the same, to feed the material forward between the downward cutting strokes of the reciprocating saws, as set forth. 20th. In a double sawing machine, the combination of the double frame, two saw gates mounted in slideways in said frame, a series of reciprocating saws supported in each gate, a driving shaft, a cam at each end thereof, two cranks extending at diametrically opposite directions from said shaft, two rods each pivotally connected at its lower end to one of the cranks and at its upper end to one of the saw gates, feed rollers provided with crown wheels, and rods having their lower ends provided with gear wheels engaging with the cams on the driving shaft, and their upper ends with pinions engaging with the crown wheels on the feed rollers, as set forth. 21st. In a sawing machine, the combination with the supporting frame, provided with a slideway portion and table, of a saw gate mounted in said slideway and supporting a gang of reciprocating saws, a circular saw mounted in the table at the rear of the reciprocating saws, and an operating shaft in connection with the saw gate and the circular saw, as set forth.

No. 57,884. Support for Typewriter and the like. (Support pour clavigraphes, etc.)

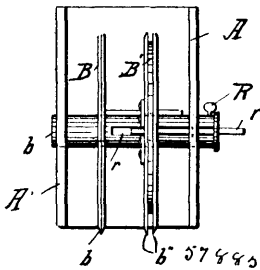
John Fraser Gregory, Saint John, New Brunswick, 23rd October, 1897; 6 years. (Filed 28th June, 1897.)

*Claim.*—1st. In combination, a plate adapted to be secured to a suitable surface, lugs projecting therefrom, a swinging bracket



pivoted to said lugs, a thumb-screw for binding said bracket in position, friction surfaces carried by the plate, a bracket for facilitating this binding operation, a disc adjustably secured to the outer end of the bracket, means for securing said disc in any adjustment, and means for securing a typewriter to said disc, as shown and described. 2nd. In combination, a bracket plate, lugs formed therewith, a rib connecting said lugs, a flange also formed with the plate, said flange having a bevelled edge, a bracket pivoted to the lugs, a thumb-screw for drawing said bracket downwards, a surface plate formed with or secured to the bracket having enlarged ends, one of said ends having a bevelled flange, a disc adjustably secured to the other enlargement, a thumb-nut for securing said disc in its adjustment, and two ears projecting from the surface of the plate and having holes therethrough for securing the baseboard of the typewriter, as shown and described.

**No. 57,885. Ruler. (Règle)**



William Raphaël Boisvert, Quebec, Canada, 23rd October, 1897; 6 years. (Filed 26th August, 1897.)

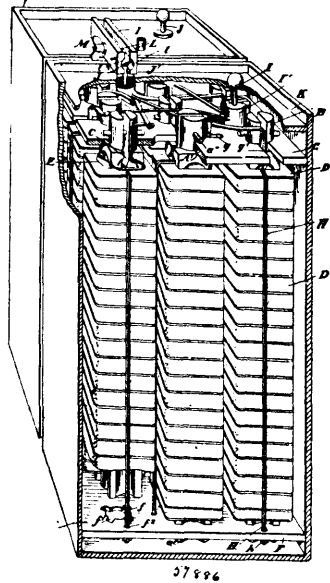
*Claim.*—In a ruler, the combination, with a case, and adjustable marking wheels journaled therein, and provided with flanges, of a flap hinged at one end to the case, a spring catch connecting the other end of the said flap to the case, and an inking pad secured to the said flap and pressed thereby against the said flanges, substantially as set forth.

**No. 57,886. Storage Battery. (Accumulateur Electrique.)**

Charles Riordan, assignee of William Joseph Still, both of Toronto, Ontario, Canada, 23rd October, 1897; 6 years. (Filed 8th February, 1896.)

*Claim.*—1st. In a storage battery, an electrode, comprising a rectangular, continuous, hollow spiral of flat strip sheet lead in flexible form with both edges free, an interposed hollow spiral of active material exposed at the inside and outside, and a supporting post for the electrode extending up within the spiral and forming a guide for the free lengthwise movement of the spiral, as and for the purpose specified. 2nd. In a storage battery, an electrode, comprising a rectangular hollow spiral of flat strip sheet lead and an interposed hollow spiral of active material, a rectangular supporting post for the electrode extending up through the spiral and longitudinal grooves in each side of the post, as and for the purpose specified. 3rd. In a storage battery, an electrode, comprising a rectangular hollow spiral of flat strip sheet lead and an interposed hollow spiral

of active material, a supporting post for the electrode extending up within the spiral and a lead from the centre of the lead spiral, as



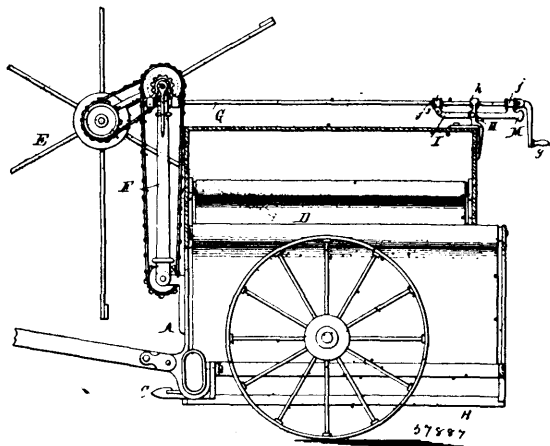
and for the purpose specified, 4th. In a storage battery, an electrode, comprising a rectangular hollow spiral of flat strip sheet lead, an interposed hollow spiral of active material, a rectangular supporting post for the electrode extending up through the spiral longitudinal grooves in each side of the post, and a lead from the centre edge of the spiral extending up through one of the grooves through the central opening of the spiral, as and for the purpose specified. 5th. The combination with the rectangular hollow spiral of flat strip sheet lead and the hollow spiral of active material filling the spaces between the convolutions of the central post, having a top slit and the elastic band passing through the slit and from end to end of the electrode, the lower end of the band being suitably fastened, substantially as described. 6th. The combination with the rectangular electrodes, formed of a flat rectangular spiral with an interposed spiral of active material, and central post with cylindrical top and slits in the tops of such posts, of the top and bottom insulating plates, oppositely formed slots for each alternate electrode in the top plate and circular openings in the centre of such slots to receive the cylindrical heads of the posts, and an elastic band for holding the plates together, having the top on a line with the slots, as and for the purpose specified. 7th. The combination with the spirally formed electrodes, having the reduced top and bottom ends forming shoulders, of the top and bottom insulating plates into which such reduced ends fit, as and for the purpose specified. 8th. The combination with the spirally formed electrodes, having the reduced top and bottom ends forming shoulders, of the top and bottom plates, and the winged holes in the bottom plate to receive the corresponding reduced ends, as and for the purpose specified. 9th. The combination with the spirally formed electrodes, having the reduced top and bottom ends forming shoulders, of the top and bottom plates and the pins extending through the bottoms of the posts above the shoulder and separating the bottoms of the electrodes from the insulating plates, as and for the purpose specified. 10th. The combination with the spirally formed electrodes, having the top and bottom ends forming shoulders, of the top and bottom plates and pins extending through the reduced ends to bind the posts of the electrodes to the top and bottom plates, as and for the purpose specified. 11th. The combination with the spirally formed electrodes, having the reduced top and bottom ends forming shoulders, of the top and bottom plates, slots in the same through which the leads extend, binding posts to which the leads are connected, and the top sealing plate resting on the tops of the posts and having openings through which the binding posts extend, as and for the purpose specified. 12th. In a storage battery, the combination with the electrodes and leads therefrom, and binding posts to which the leads for each cell are connected, having stems with spherical heads, of a pair of connecting plates for the cells having arc-shaped grooves and clamping means for holding the spherical heads in the grooves, as and for the purpose specified.

**No. 57,887. Grain Harvester. (Moissonneuse.)**

The Johnston Harvester Company, assignee of George Albert Farrell, both of Batavia, New York, U.S.A., 23rd October, 1897; 6 years. (Filed 15th October, 1897.)

*Claim.*—1st. The combination with the movable reel standard and its adjusting rod, capable of longitudinal and rotary movement, of a catch bar hung on said rod and provided with locking teeth on its

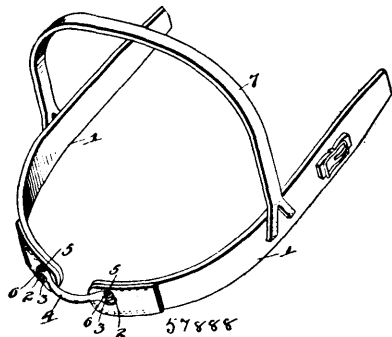
side, and a stop with which said catch bar is interlocked by a rocking movement of the bar on said rod, substantially as set forth.



2nd. The combination with the movable reel standard and its adjusting rod, of a bearing in which the rear portion of said rod is supported and in which said rod can turn and also move lengthwise, a catch bar hung on said rod and provided with teeth on its side, and a stop with which said catch bar is engaged by a rocking movement of the catch bar on said rod, substantially as set forth. 3rd. The combination with the movable reel standard and its adjusting rod capable of longitudinal and rotary movement, of a catch bar hung on said rod and provided with locking teeth on its side, a stop with which said catch bar is interlocked by a rocking movement of the bar on said rod, and a spring which tends to hold said bar in engagement with said stop, substantially as set forth. 4th. The combination with the movable reel standard and its adjusting rod capable of longitudinal and rotary movement of a catch bar hung on said rod and provided with locking teeth on one side, a bracket provided with a bearing in which said rod is arranged, and an opening in which the catch bar is arranged, a stop which is arranged on the bracket on one side of the catch bar and with which the catch bar is interlocked by a rocking movement of the bar on said rod, and a spring arranged on the bracket on the opposite side of the catch bar and adapted to hold the bar yieldingly in engagement with said stop, substantially as set forth.

**No. 57,888. Breast Strap Attachment.**

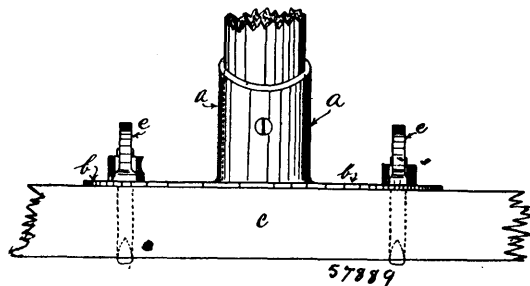
(Attache pour harnais à poitrails.)



Gilbert Nevling and Thomas Tailor Moore, both of Glen Campbell, Pennsylvania, U.S.A., 23rd October, 1897; 6 years. (Filed 15th October, 1897.)

Claim.—In combination with the breast-strap made in two sections, of lugs projecting outwardly therefrom, and a bow having bifurcated ends removably attached to the said lugs, substantially as and for the purpose specified.

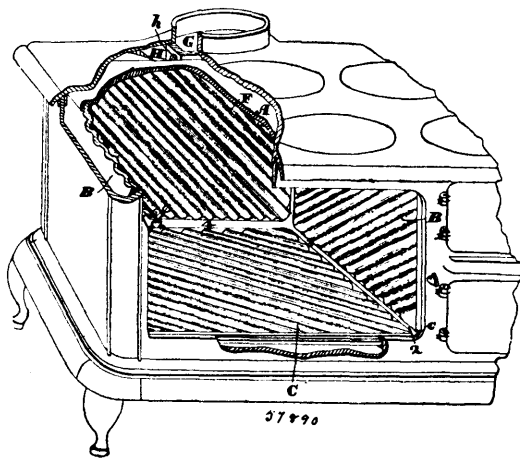
**No. 57,889. Broom Handle. (Manche de balai.)**



George John Craven, London, Middlesex, England, 25th October, 1897; 6 years. (Filed 24th September, 1897.)

Claim.—The method of fixing a handle to a brush, rake or hoe by means of rivetted screws, such screws to enter the two holes in the flanges of the socket, and fasten by the nuts.

**No. 57,890. Oven. (Fourneau.)**



Richard Bigley, Toronto, Ontario, Canada, 25th October, 1897; 6 years. (Filed 14th October, 1897.)

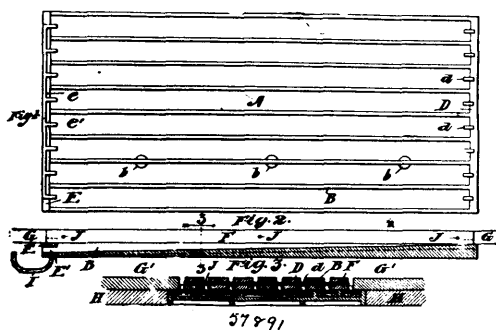
Claim.—1st. An oven plate having a diagonally corrugated surface, as and for the purpose specified. 2nd. In an oven, an interior lining comprising the bottom plate, side plates and back plate all provided with a diagonal corrugations as and for the purpose specified. 3rd. In combination the bottom plate, side plates and back plate all provided with diagonal corrugations and corner channels formed free from corrugations, on the edges of the corrugated portions of the plates, as and for the purpose specified. 4th. In combination the bottom plate C provided with diagonal corrugations, the plain top plate A, the front frame D provided with grooves *d* and *d*<sup>1</sup> to receive the front edge of the bottom and top plates, the diagonally corrugated back plate having grooves *e*, *e*<sup>1</sup> to receive the back edges of the bottom and top plates, the side plates P and the curved lips formed at the back and side of the bottom plate and extending beneath the corrugated surfaced of the side and back plates as and for the purpose specified. 5th. In an oven, the combination with the back plate and smoke flue, of a ventilating flue behind the back plate, openings at the bottom of the back plate connecting such flue with the interior of the oven, and openings in the top of the ventilating flue extending into the smoke flue, as and for the purpose specified.

**No. 57,891. Floor Drain. (Egout pour planchers.)**

Herbert Prentice Crane, Chicago, Illinois, U.S.A., 25th October, 1897; 6 years. (Filed 18th October, 1897.)

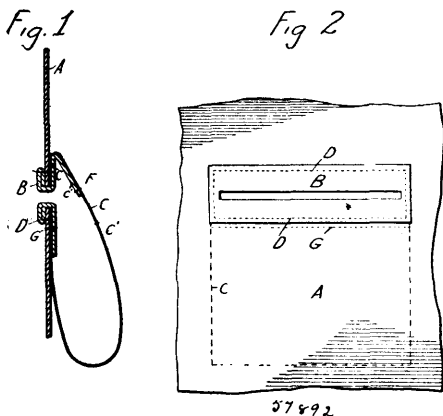
Claim.—1st. A floor drain, comprising in combination a metal frame having longitudinal ribs on its upper surface providing channels between them, and transverse ledges at its ends whose upper surfaces are in the plane of the bearing edges of the ribs, spacing lugs on the ledges and slats resting at their ends upon the ledges between the lugs, the bodies of said slats being supported upon the upper edges of the longitudinal ribs, substantially as described. 2nd. A floor drain comprising in combination a metal frame, having an inclined upper surface and integral longitudinal parallel ribs upon said surface, providing channels of gradually increasing depth from end to end, transverse ledges at its ends whose upper surfaces

are in the plane of the bearing edges of the ribs, the said ribs affording at their deeper ends, a seat for the lower ledge, and thereby



forming, in combination with the ledge and bottom, openings for the escape of the liquids, lugs on said ledges alternating in position with the ribs, and slats resting at their ends between said lugs and upon said ledges, and adapted to bear throughout their length upon the ribs, substantially as described.

**No. 57,892. Pocket for Garments.**  
(*Poches pour vêtements.*)



Reinhold Bartell and Joseph Walter Shields, both of Philadelphia, Pennsylvania, U.S.A., 25th October, 1897; 6 years. (Filed 18th October, 1897.)

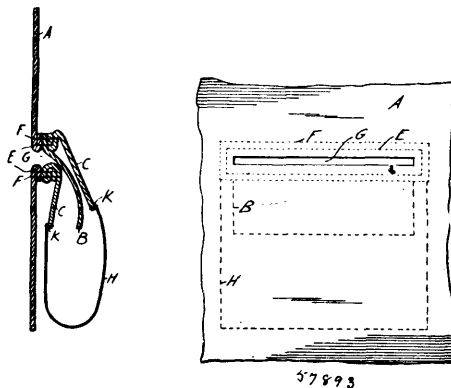
*Claim.*—1st. As a new article of manufacture, a garment provided with a pocket opening, a pocket, and a reinforce, the latter being inturned through said opening and presenting a facing for the edge thereof both at the front and rear of the cloth, the edges of the pocket strip being secured between the cloth and the reinforce, substantially as described. 2nd. As a new article of manufacture, a garment provided with a pocket opening, a pocket, and a reinforce, the latter being folded double in front of the cloth and also folded behind the same above and below the pocket opening, and the pocket being attached to the reinforce and cloth, substantially as described. 3rd. As a new article of manufacture, a garment provided with a pocket opening, a pocket, and a reinforce, the latter being in one piece, and providing a facing for the cloth at the edge of the pocket opening both at the front and rear of the said cloth, the said parts being all secured together by a rectangular line of stitching surrounding the pocket opening, and the pocket being completed substantially as set forth.

**No. 57,893. Pocket for Garments.**  
(*Poche pour vêtements.*)

Reinhold Bartell and Joseph Walter Shields, both of Philadelphia, Pennsylvania, U.S.A., 25th October, 1897; 6 years. (Filed 18th October, 1897.)

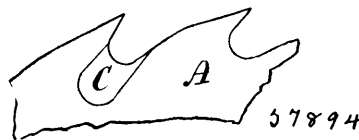
*Claim.*—1st. As a new article of manufacture, a garment provided with a pocket-opening, a pocket, and a facing strip, said strip being folded into a pleat about said opening, and attached to the part of the cloth of the garment inturned at the edge of said opening and also at its inner ends to the pocket, substantially as described. 2nd. As a new article of manufacture, a garment provided with a pocket-opening, a pocket, and a facing strip, said strip being in a single piece and folded into a pleat about said opening, having a slit with closed ends, the same being attached to the face of the

garment and inturned through said opening carrying with it the edges of the cloth about said opening, and thereafter sewed with a



rectangular line of stitching around said opening, and also attached to the material of the pocket, substantially as described. 3rd. As a new article of manufacture, a garment provided with a pocket-opening, a pocket, and a facing strip, the material of said pocket being in a single piece and folded into a pleat about said opening, said facing strip being attached thereto, all of said parts being attached to the back side of the cloth of the garment, substantially as described.

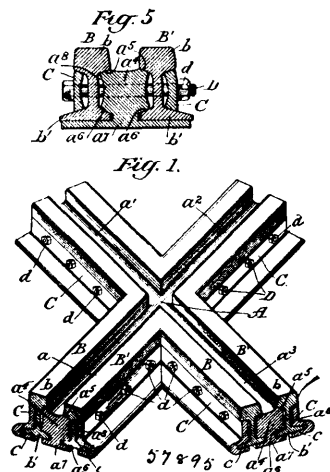
**No. 57,894. Patching Mill Saw.**  
(*Methode de réparer les scies.*)



Oliver Giroux, Rockland, Ontario, Canada, 25th October, 1897; 6 years. (Filed 18th October, 1897.)

*Claim.*—1st. The art or method of mending cracked or split saws which consists in removing a portion of the material of the saw on opposite sides of the crack or split to make a flat recess, then making a patch of flat steel to fit said recess, and brazing the patch to said recess, as set forth. 2nd. A mended or restored broken saw having a crack or split covered by a patch of flat steel fitted to and inserted in a recess formed by grinding or filing out a portion of the saw plate on one or both sides, and having said patch brazed in said recess and covering the crack or split, as set forth.

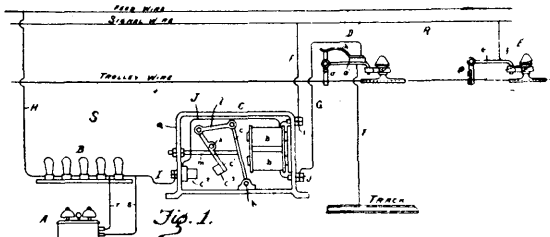
**No. 57,895. Railway Frogs and Crossings.**  
(*Aiguille de croisement.*)



Lawrence Fulton Braine, Brooklyn, New York, U.S.A., 25th October, 1897; 6 years. (Filed 18th October, 1897.)

*Claim.*—1st. In a railway frog or crossing, the combination with the rails, of a continuous filling piece having radiating arms integral one with another, each of said arms having a head to co-operate with the rails on opposite sides thereof and having a foot to support said rails, binders adapted to be secured to the outer surfaces of the rails and bolts adapted to secure all of the parts together, substantially as shown and described. 2nd. In a railway frog or crossing, the combination with the rails, of a continuous filling piece having radiating arms integral one with another, each of said arms having a head to co-operate with the rails on opposite sides thereof and having a foot to support said rails, binders or angle pieces shaped to fit in the angle between diverging rails and to extend from one to the other and bolts to secure all of the parts together, substantially as shown and described. 3rd. In a railway frog or crossing, the combination with the rails, of a continuous filling piece having radiating arms integral one with another, each of said arms having a head to co-operate with the rails on opposite sides thereof and having a foot to support said rails, binders adapted to be secured to the outer surfaces of the rails and having each a flange or lip to extend over and beneath the foot of the rails to support the same, and bolts to secure all of the parts together, substantially as shown and described.

**No. 57,896. Street Crossing Signal.**  
(Signal pour traverses de rues.)

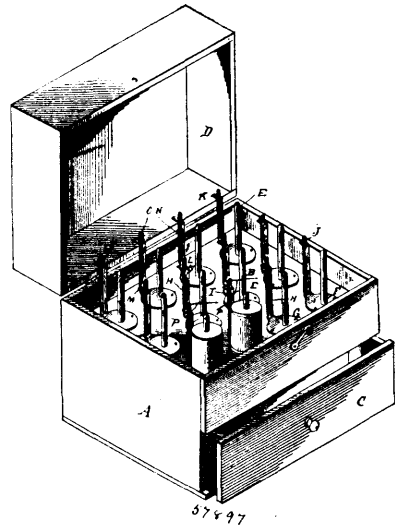


Charles A. Parrish, Jackson, Michigan, U.S.A., 25th October, 1897; 6 years. (Filed 18th October, 1897.)

*Claim.*—1st. In an electrical signal for street-crossing, the combination with a street car of a circuit-maker adapted to engage with the trolley of said car, a relay connected with said circuit-maker, a signal having a circuit there through arranged to be completed by said relay, whereby said signal is operated, and means for breaking said circuit, substantially as described. 2nd. In an electrical signal for street-crossings, the combination with a trolley car, of a circuit-maker, a relay, a signal, a circuit-breaker, all suitably connected to be electrically operated by the passage of the trolley of said car, substantially as described. 3rd. A signalling apparatus, comprising a relay, a circuit-maker, suitably supported and adapted to contact with a trolley-wheel to complete the circuit from the track to said relay, a signal arranged to be supported at said crossing and connected with electrical terminals with said relay, said relay being adapted to connect said terminals, whereby a circuit is completed through said signal, and a circuit-breaker through which said circuits are arranged to pass and which is adapted to be operated by the trolley-wheel of a car to break said circuit and check the operation of the signal. 4th. A signalling apparatus, comprising a circuit-maker adapted to be closed by contact with the trolley-wheel, a set of magnets, a circuit-breaker, a circuit between said circuit-maker and the track, including therein said magnets and circuit-breaker, an armature adapted to be operated by said magnets, which are energized by the current passing through said circuit, a contact-point actuated by said armature, electrical terminals arranged in the path of said contact point to be engaged thereby, a second circuit leading from a feed wire through said terminals to said magnets, adapted to re-energize said magnets and to lock said contact point in engagement with said terminals, a signal within said second circuit adapted to be operated by the current passing therethrough, and to be kept in operation until the contact at said terminals is broken by the engagement of the trolley with said circuit-breaker, substantially as described. 5th. A signalling apparatus, comprising two circuits, one of which includes a circuit-maker, relay, a circuit-breaker, the other of which includes an alarm, said relay and said circuit-breaker, said circuit-maker being adapted to be operated by a passing trolley to complete the circuit through said relay, whereby a second circuit through said signal is completed, the relay being arranged to complete said second circuit and to retain said signal in operation until the said circuit is broken by the actuation of the circuit-breaker through the medium of said trolley-wheel, substantially as described. 6th. A signalling apparatus, comprising a set of magnets, a contact-lever with contact-point, circuit terminals in position to be contacted by said contact-point, a circuit-maker to be operated by the incoming car, a circuit-breaker to be operated by the passing car at the crossing, a circuit from the circuit-maker, through said magnets and circuit-breaker, to the track or ground, a signal, and a circuit from feed wire through said signal and circuit terminals, thence through magnets and circuit-breaker on to track or ground, substantially as described. 7th. In a signal, the combination of a set of magnets, circuit terminals, a pivoted contact-lever provided with a contact point for contacting the circuit

terminals, an armature pivoted at one end to be operated by said magnets connected with said lever, whereby said lever is operated, and an adjustable stop arranged to engage said armature, substantially as described. 8th. A circuit-maker, comprising a suitable support to be fastened to a trolley wire, a horizontal arm having one end engaging said support, a vertical swinging lever at the outer end of said arm, said lever composed of insulating material having a metallic plate on one side, said plate being adapted to be contacted by the trolley-wheel, substantially as described. 9th. A circuit-breaker, comprising a suitable support adapted to be secured to the trolley wire, an arm extending therefrom, a lever pivoted at the outer end of said arm adapted to be engaged by a passing trolley, a spring suitably secured to and insulated from said arm, and having its outer upper end adapted to engage the upper end of said lever, whereby an electrical circuit is made through said spring, lever and supporting arm, the lower end of said lever being composed of insulating material to contact with said trolley-wheel, substantially as described.

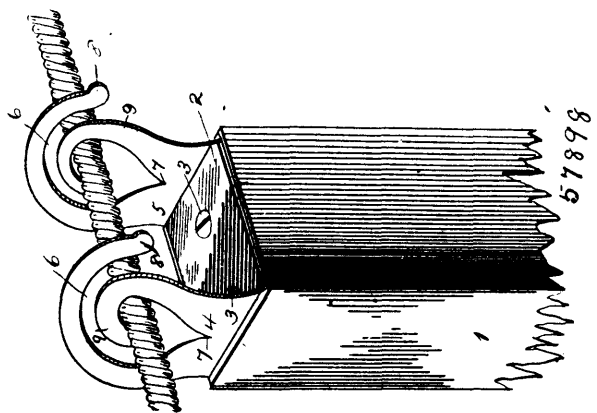
**No. 57,897. Ladies' Work Box.**  
(Boîte à ouvrage pour dames.)



Annis Eleanor Conety, Gracedale, Pennsylvania, U.S.A., 25th October, 1897; 6 years. (Filed 18th October, 1897.)

*Claim.*—In a work-box, a series of rows of spool-holders, each having a central spindle, an arm in the rear of and parallel with said spindle, a guide or perforation near the middle of the arm through which the thread passes rearwardly from the spool, and a perforation or guide at the upper end of the arm through which the thread may be drawn forward over the spool, substantially as and for the purpose set forth.

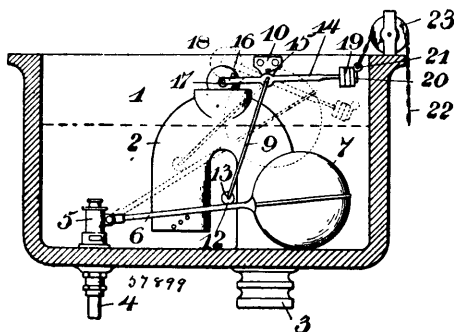
**No. 57,898. Clothes Line Prop.**  
(Appui pour cordes à linge.)



John H. Stockman, Oscoda, and Lyman A. Thornton, Au Sable, both in Michigan, U.S.A., 25th October, 1897; 6 years. (Filed 18th October, 1897.)

*Claim.*—The combination with a clothes line prop, of a substantially U-shaped head secured thereto which has arms that are provided with inwardly and downwardly extending slots which terminate in an upwardly extending portion, thereby providing inner hook guards.

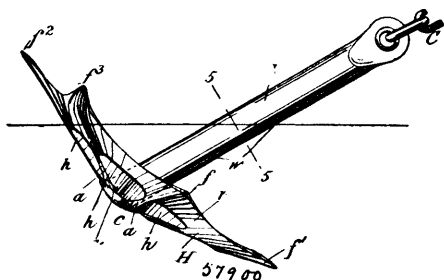
**No. 57,899. Siphon Flush. (Siphon à laver.)**



Bernard Michael Carney, McKeesport, Pennsylvania, U.S.A., 25th October, 1897; 6 years. (Filed 22nd July, 1897.)

*Claim.*—1st. A water-closet tank having a flushing apparatus, a connection between the seat and the operative parts, whereby while the seat is depressed, the tank will be intermittently flushed, and an after flush operated to flush the closet when pressure is removed from the seat, substantially as set forth. 2nd. A closet flush tank having a stationary siphon, an inlet valve, a valve-operating float, a crank-shaft journaled in said tank, and a cord or chain connected to said crank-shaft and adapted to rock it into engagement with the stem of the valve-operating float to lower said float and open the inlet valve, substantially as set forth.

**No. 57,900. Anchor. (Ancre.)**

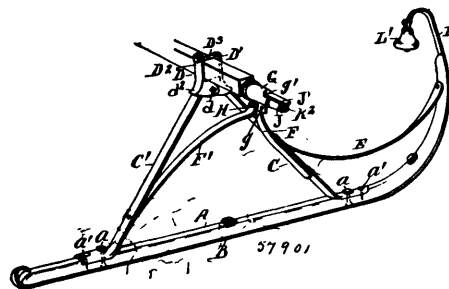


Daniel Hoyt, South Norwalk, Connecticut, William F. Oatman and Henry D. Habson, residents respectively of East Orange, New Jersey, all in the U.S.A., 26th October, 1897; 6 years. (Filed 14th September, 1897.)

*Claim.*—1st. An anchor consisting of a dish-shaped head, and a shank fixed centrally in said head, said head having a sharp scalloped edge with flukes between the scallops around the edge, and having a concavity whose radius is greater than the length of the shank, substantially as described. 2nd. An anchor consisting of a dish-shaped head slightly concave on its underside, and an inclined shank fixed in the centre of the head, the whole being so constructed and arranged as to sink in the mud or silt, substantially as described. 3rd. An anchor consisting of a dish-shaped head slightly concave on its upper side and having sharp pointed flukes, and an inclined flattened shank fixed in the centre of the head, the whole being so constructed and arranged as to sink in the mud or silt, substantially as described. 4th. In an anchor, the combination with a dishing head, of a shank fixed to the crown or centre of said head and having its free end portion placed at an oblique angle with the plane of the head when the anchor is in its operative position. 5th. In an anchor, the combination with a dishing head, of a straight shank adjusted to pass obliquely through the crown or centre of said head. 6th. In an anchor, the combination with a dishing head comprising flukes extending outward from its crown, of a rigid shank fixed to said crown, the axis of its free end being placed at an oblique angle with the plane of the head, and in a plane at right angles to the plane of the head and intersecting the periphery of the head between the two nearest flukes. 7th. In an anchor, the combination with a dishing head comprising flukes extending outward from the crown, of a shank fixed to the crown of said head, the axis of its free end being placed at an oblique angle with the plane of the head and in a plane at right angles to the plane of the head and intersecting the periphery of the head in line with the most distant fluke,

the two flukes nearest said most distant fluke being turned upward more than aforesaid flukes. 8th. In an anchor, the combination with a dishing head comprising flukes extending outward from the crown, of a shank fixed to the crown of said head, the axis of its free end being placed at an oblique angle with the plane of the head, and the surface of said shank facing the head being made in the form of a wedge extending longitudinally along said shank. 9th. In an anchor, the combination with a dishing head, of a shank fixed to the crown or centre of said head and having its free end portion placed at an angle with the plane of said head, the surface of said shank facing the head being wedge-shaped substantially throughout its length.

**No. 57,901. Runners for Vehicles. (Patin pour voitures.)**



Solomon E. Oviatt, Lansing, Michigan, U.S.A., 26th October, 1897; 6 years. (Filed 20th June, 1896.)

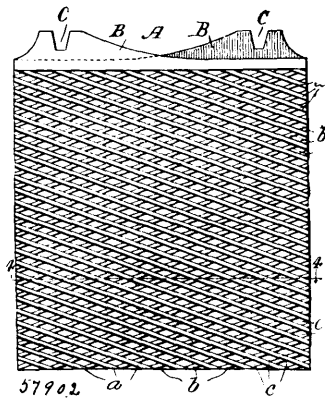
*Claim.*—1st. The combination with a runner, of an inverted V-shaped support, an axle-clamp constructed of two jaws resting upon said support, and a bolt pivotally uniting said jaws and passing transversely under the adjacent portion of said support to secure the jaws thereupon and permit the oscillation of the runner, substantially as set forth. 2nd. The combination with a runner, of a support, an axle-clamp having two jaws jointedly engaged the one with the other and with said support to permit the oscillation of the runner, said jaws constructed with ears projecting downwardly over the upper ends of said arms to limit the oscillation of the runner, substantially as set forth. 3rd. The combination of a runner, an inverted V-shaped support rising therefrom, an axle clamp consisting of two independent jaws, a bolt pivotally uniting said jaws and passing transversely under the adjacent portion of said support to secure the jaws thereupon and permit the oscillation of the runner, and means to compress the upper ends of the jaws upon the axle, substantially as set forth. 4th. The combination with a runner, or an inverted V-shaped support, an axle-clamp constructed of two independent jaws resting upon said support, a bolt pivotally uniting said jaws and passing transversely under the adjacent portion of said support to secure the jaws thereupon and permit the oscillation of the runner, and means to compress the upper ends of the jaws upon the axle, and brace-arms F, F' connected with said support, substantially as set forth. 5th. The combination with a runner, of an inverted V-shaped support, an axle-clamp constructed of two independent jaws resting upon said support, a bolt pivotally uniting said jaws and passing transversely under the adjacent portion of said support to secure the jaws thereupon and permit the oscillation of the runner, and means to compress the upper ends of the jaws upon the axle, brace-arms F, F' connected with said support, and a socket connected with the upper ends of said brace-arms, substantially as set forth. 6th. The combination with a runner, of supporting arms C, C', an axle-clamp supported upon said arms, brace-arms F, F', a socket G supported upon said brace-arms, a packing within said socket, a sleeve J to engage the outer end of the axle, said sleeve provided with a step-plate, said socket cut away to form supporting-shoulders for said step-plate, substantially as set forth. 7th. The combination with a runner A, of supporting arms C, C', an axle-clamp jointedly supported upon said arms, a nose-piece of spring metal upon the forward end of the runner, and a bell attached to said nose-piece, substantially as set forth. 8th. The combination with a runner A, of supporting arms constructed of an inverted V-shaped metallic bar, a clamp consisting of two jaws resting upon the top of said brace-arms, and a bolt passing under the apex of said bar jointedly uniting the clamp thereupon and the jaws one with another, substantially as set forth. 9th. The combination of a runner, a clamp jointedly supported thereon, a socket G, braces connected with said socket and with the support for the clamp, and a brace P adjustably connecting the socket and clamp, substantially as set forth.

**No. 57,902. Secondary Battery and Process of forming same. (Pile secondaire.)**

George Washington Harris and Richard Josiah Holland, both of New York, State of New York, U.S.A., 26th October, 1897; 6 years. (Filed 1st January, 1897.)

*Claim.*—1st. An electrode formed of a single integral piece of lead, for use in secondary or storage batteries, and consisting of an open-

work or skeleton plate composed of oppositely inclined intersecting or crossing ribs and grooves on its opposite sides, said ribs being of



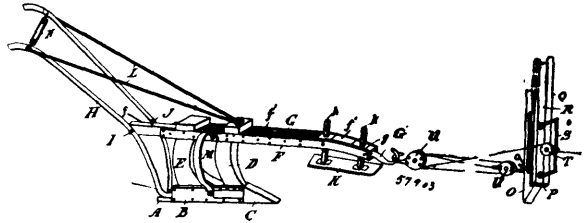
rectangular or quadrilateral form in cross-section and the said grooves on one side of the plate extending to the grooves on the opposite side thereof, and all of said grooves being open at the side and bottom edges of the plate to make the latter borderless except at its top where it is provided with a lug, as B, substantially as set forth. 2nd. The herein described process of forming electrodes for secondary or storage batteries, consisting in subjecting lead plates to the action of an electric current in an electrolyte or bath composed of two acids, one of which acids is a solvent, and the other of which is a non-solvent, or a poor solvent, of lead, together with one or more salts of each of said acids, and afterwards subjecting the partly-formed electrodes to the action of an electric current in another electrolyte or bath composed of dilute sulphuric acid and an acid sulphate, substantially as described. 3rd. The herein described process of forming electrodes for use in secondary or storage batteries, consisting in subjecting lead plates to the action of an electric current in an electrolyte or bath composed of magnesium sulphate, sulphuric acid, acetic acid and magnesium acetate, and afterwards subjecting the thus partly-formed electrode to the action of an electric current in another electrolyte composed of dilute sulphuric acid and an acid sulphate, substantially as described. 4th. The herein described process of forming electrodes for secondary or storage batteries, consisting in subjecting lead plates to the action of an electric current in an electrolyte or bath composed of a solution of magnesium sulphate and two acids, one of which acids is a solvent and the other of which is a non-solvent, or a poor solvent, of lead, together with a suitable metallic salt of the solvent acid, and afterwards subjecting the partly-formed electrode to the action of an electric current in another electrolyte or bath composed of dilute sulphuric acid and an acid sulphate, substantially as described. 5th. The herein described process of forming electrodes for secondary or storage batteries, consisting in first subjecting the lead plates to an acid bath which will react thereon to form a thin coating of lead sulphate, next subjecting the lead plates to the action of an electric current, in an electrolyte or bath composed of a solution of magnesium sulphate and two acids, one of which is a solvent and the other of which acids is a non-solvent, or a poor solvent, of lead, together with a suitable metallic salt of the solvent acid, and afterwards subjecting the partly-formed electrode to the action of an electric current in another electrolyte or bath composed of dilute sulphuric acid and an acid sulphate, substantially as described. 6th. The herein described process of forming electrodes for secondary or storage batteries, consisting in subjecting the lead plates to the action of an electric current in an electrolyte or bath composed of a solution of magnesium sulphate and two acids, one of which acids is a solvent, and the other of which acids is a non-solvent, or a poor solvent, of lead, together with a suitable metallic salt of the solvent lead, and afterwards subjecting the partly-formed electrode to the action of an electric current in another electrolyte or bath composed of dilute sulphuric acid and an acid sulphate and finally reducing positive electrodes to form negatives, by subjecting said positives to the action of an electric current, from a negative terminal, in the last-mentioned electrolyte or bath, substantially as described.

**No. 57,903. Ditching Plough. (Charrue à forsoyer.)**

Andrew Estey and George Downes, both of Calais, Maine, U.S.A., 26th October, 1897; 6 years. (Filed 24th September, 1897.)

*Claim.*—1st. In a ditching plough, the combination of a slotted beam, posts held in said beam, side-plates secured to the lower ends of said posts, a centre or sole-piece secured between said side-plates and forming with said plates and lower ends of said posts a socket, a plough-point with pin inserted in said socket, side-knives secured to said side-plates and beam, stilts secured pivotally to the tail end of the sole-piece and adjustably connected at the upper end, an adjustable connection with the beam consisting of a perforated

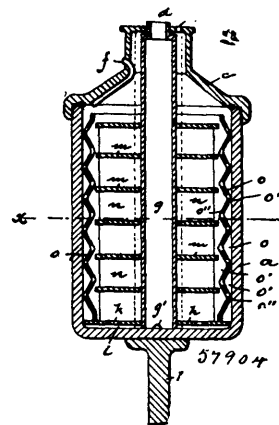
bolt passing through said beam and stilts, and a pin passing through said beam and bolt, braces connecting said stilts and beam, and an



adjustable gauge-shoe at the forward end of said beam, substantially as set forth. 2nd. In a ditching plough, the combination of a plough-share with movable point rigidly secured to a plough-beam by posts, side-knives secured to the beam, and share-stilts pivotally secured to the tail of the share, and adjustably connected at the upper end, and adjustably connected with the beam by a perforated cross-bolt and set-pin, an adjustable gauge-shoe at the forward end of the beam, a draft clevis or hook at the forward end of the beam, an anchor or station-board placed transversely across the line of the ditch provided with hook adjustable in a slot, a sliding V-bed on said board, a carriage or slide in said V-bed, a bail on said carriage, a tail-block on said bail, and tackle connected to the draft-hook of the beam and the hook in the station-board, and having the running end of its fall passing through said tail-block, substantially as set forth. 3rd. In an anchor or station for a ditching plough, a slotted transverse board adapted to be placed across the line of the ditch, a V-bed secured to the upper edge of said board, a carriage in said V-bed, a bail on said carriage, a tail-block on said bail, and a hook held adjustably in the slot of said station-board adapted to be connected to the plough by tackle having the running end of its face passing through the tail block. 4th. In a ditching plough, the combination of a plough-beam having vertical slots, posts secured in one slot, side-plates secured to the lower ends of said posts, a centre or sole-piece secured between said plate and forming a socket, and a removable plough-point with pin adapted to be inserted in said socket and form a plough-share with the forward post, side-plates and sole-piece, substantially as set forth. 5th. In a ditching plough, the combination of a plough-beam, posts secured in said beam, side-plates secured to the lower ends of said posts, a centre or sole-piece secured between said side-plates and forming with said posts and side-plates a socket for the pin of the point, and having a rearwardly-projecting end, stilts having their lower ends bent forward and pivoted to the tail end of said sole-piece, a turnbuckle connecting the upper ends of said stilts, and a transversely-adjustable connection with the beam consisting of cross-bolt and set-pin, substantially as set forth.

**No. 57,904. Centrifugal Creamer.**

(Crèmeuse centrifuge.)



Oscar Anderson, Newark, New Jersey, U.S.A., 26th October, 1897; 6 years. (Filed 8th April, 1897.)

*Claim.*—1st. The combination with a rotary bowl, and means for rotating the same, of a milk supply tube arranged at the centre of the bowl and imperforate to deliver all the milk at the bottom thereof, a series of horizontal or outwardly-extending partitions arranged within the bowl and fixed to said milk supply tube and removable therewith, and the perforated and irregular cylindrical partitions arranged outside of said horizontal partitions, all substantially as set forth. 2nd. The combination with the rotary bowl, having opening therein for the new milk, cream and blue milk, and means for rotating said bowl, of a series of partitions arranged

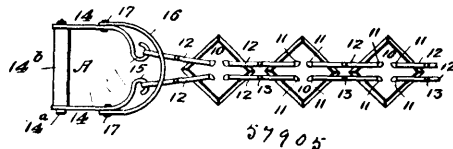


within said bowl and forming a vertical series of chambers at or near the centre of the bowl, and a vertical partition arranged outside of and around said chambers within said bowl, the last partition having irregular surfaces and provided with openings for the cream and blue milk at points in its vertical length closely adjacent to the edges of the first said partitions, all substantially as set forth. 3rd. The combination with the rotary bowl, having ducts for the blue milk, cream and new milk, and means for rotating said bowl, of a central feed tube *g* imperforate to deliver all the milk at one end of the bowl, partitions *m* extending outward from said feed tube, and a cylindrical partition arranged around said partitions *m* and provided with blue milk and cream passages, substantially as set forth. 4th. In a centrifugal creamer, the combination with the bowl *a*, and means for rotating the same, of a cylindrical partition, comprising a plate having protuberances and opposite corresponding recesses, the protuberances bearing directly upon the bowl and holding the cylinder in place, said protuberances being perforated near their apices and bases to allow of the flow of blue milk and cream therethrough and leaving blue milk passages entirely therearound to allow both a vertical and horizontal flow, substantially as set forth. 5th. In a centrifugal creamer, the combination with the bowl and means for operating the same, of a cylinder open at its opposite ends and having protuberances entirely surrounded by passages for the fluid, to allow a free horizontal and vertical flow, each protuberance being perforated near its point of farthest outward projection, and the cylinder being also perforated at the base of its protuberances, substantially as set forth. 6th. In a centrifugal creamer, the combination with the bowl and means for operating the same, of a sheet metal cylinder with protuberances which do not extend continuously around the periphery of the bowl, said protuberances being stamped or pressed in said cylinder to give the same irregularity of shape, the protuberances leaving passages for the fluid entirely around the same and having perforations at or near their apices and bases, substantially as set forth. 7th. In a centrifugal creamer, the combination with the bowl and means for operating the same, of a sheet metal cylinder with discontinuous peripheral protuberances on the outside and corresponding recesses on the inside, the protuberances being entirely surrounded with fluid passages admitting both a horizontal movement of the fluid and a vertical flow as it gradually passes to its exit, said cylinder having perforations for the cream and blue milk, substantially as set forth. 8th. In a centrifugal creamer, the combination with a rotary bowl and means for operating the same, of a perforated partition, comprising a piece of impressed sheet metal turned into cylindrical form, the impressions due to the stamping, forming peripherally discontinuous perforated protuberances on one side of the cylinder and recesses at the other side, the protuberances admitting a vertical flow of fluid between, substantially as set forth. 9th. In a centrifugal creamer, the combination with the bowl and means for operating the same, of a sheet metal cylinder with protuberances and perforations, and a frame having partitions forming a vertical series of chambers, the outer edges of the said partition extending out to the inner side of the cylinder at the bases of the protuberances, and ducts whereby the bowl may be supplied with milk at one end and the cream and blue milk may be separately emitted at the other, substantially as set forth. 10th. In a centrifugal creamer, the combination with the bowl and means for operating the same, of a sheet metal cylinder having protuberances and perforations, and a frame comprising an imperforate milk supply tube having partitions forming a vertical series of chambers and a flange on which the said cylinder is seated, substantially as set forth. 11th. In a centrifugal liquid separator, the combination with the bowl and means for operating the same, of the milk supply tube open to receive the milk at one end of the bowl and to deliver the same at the other, a series of partitions *m* fastened upon said tube and extending laterally therefrom and forming chambers therebetween, said chambers having open communication with one another near said milk supply tube to allow a flow of cream at the cream wall, and direct communication of the said milk tube with said chambers being cut off or closed to prevent an intermingling of the new milk with the cream of the cream wall, substantially as set forth. 12th. In a centrifugal separator, the combination with the bowl and means for operating the same, of the new milk supply tube, open to receive the milk at one end of the bowl and to deliver the same at the other, a series of partitions fastened thereto and extending laterally therefrom, forming chambers between which are open to one another near said tube, to allow a flow of cream at the cream wall, wings *n* arranged between said partitions, and extending from one to another to strengthen said partitions in their relation to one another, substantially as set forth. 13th. In a centrifugal creamer, the combination with the bowl and means for operating the same, of a milk supply tube having a series of laterally extending partitions fastened thereto forming chambers therebetween, which latter are closed from direct communication with the passages for the new milk within said tube, but are open at or near said tube to allow a flow of cream from one chamber to the next, and a cylindrical partition arranged within the bowl at the interior wall thereof, and having perforated protuberances and corresponding recesses, the partition being also perforated at said recesses, the lateral partitions of the milk supply tube extending out to the cylinder, and the recesses serving as fluid passages from one chamber to another, substantially as set forth. 14th. The combination with the rotary bowl and means for operating the same, said bowl having exits and inlets for the new milk, cream and blue

milk, of an interior irregularly formed cylindrical partition, a tube disposed centrally within said partition, and a series of horizontal partitions disposed around said tube, said tube having an opening for the emission of milk at one end of said series of horizontal partitions only, so that the milk will all be forced to flow over the edges of said partitions, substantially as set forth.

#### No. 57,905. Cutter for Hay Stack.

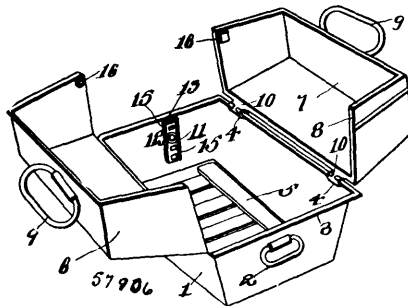
(Machine à couper le foin en meule.)



Hilary J. Twiss, Baker, Oregon, U.S.A., 26th October, 1897; 6 years. (Filed 4th October, 1897.)

*Claim.*—1st. A stack-cutter consisting of a series of blades, links loosely connected with the said blades, and extending in opposite directions therefrom, the links of opposing blades being pivotally connected, handles consisting of slotted straps, the links of the end blades being passed through the slots of the said straps, and handles pivoted in the said straps and pivotally connected with the links passed through the straps, substantially as and for the purpose specified. 2nd. A cutting apparatus consisting of a series of angular edged blades each having two openings at each side of the transverse centre thereof, and two links located between each blade, the links respectively having their ends loosely held within the openings whereby the links and blades form a continuous flexible chain, substantially as described. 3rd. A cutting apparatus consisting of a series of angular edged blades each having two openings at each side of its transverse centre, two links located between each pair of blades, the links respectively having their ends pivoted within the openings in the blades and each link having a joint intermediate the end thereof whereby a continuous flexible chain is formed, substantially as described. 4th. A cutting apparatus consisting of a series of angular edged blades separated from each other, and links respectively located between each pair of blades, the links being pivotally connected to the blades and serving to form a continuous chain, the links being attached to the blades at points adjacent to their longitudinal centres whereby portions of the blade project on each side of the links and give a double cutting edge, substantially as described. 5th. A cutting apparatus consisting of a series of edged blades, and a link between each pair of blades, the links being respectively pivoted to the blades at points adjacent to the longitudinal centres of the blades, whereby portions of the blades project on each side of the links so as to give the cutting apparatus a double cutting edge, substantially as described. 6th. A cutting apparatus consisting of a plurality of edged blades each with an opening therein the openings being respectively located on opposite sides of the transverse centres of the blades, and a link located between each pair of blades, the links each consisting in two looped strips of material respectively passed through the openings in the blade and having their inner ends respectively pivotally joined to each other, substantially as described. 7th. The combination of two links, a handle having two side portions each with a hook respectively removably receiving the ends of the links, a rigid connection between the side portions of the handle, and a curved rigid strap the ends of which are respectively secured to the side portions of the handle, the strap being provided with an opening receiving the links, substantially as described.

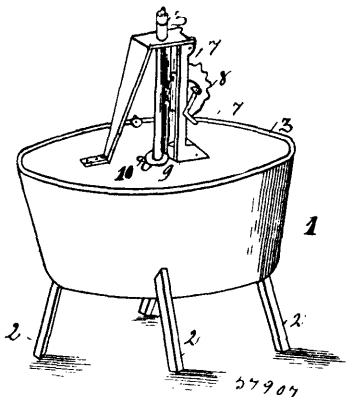
#### No. 57,906. Bake Pan. (Tourtière.)



Charles Gilbert Sargeant, Exeter, New Hampshire, and Frank Goodwin, Elliott, Maine, both in the U.S.A., 26th October, 1897; 6 years. (Filed 15th October, 1897.)

*Claim.*—1st. In a bake-pan, the combination with a body portion, of a pair of top portions hinged to said body portion and forming a completely enclosed pan when shut upon said body portion, substantially as described. 2nd. In a baking-pan, the combination with a body portion having a reinforcing wire around the upper edge thereof, of top portions provided with clips extending around said reinforcing wire and open on one side thereof to permit the removal of said top portion, and handles formed upon the various portions, substantially as described. 3rd. In a baking-pan, the combination with a body portion, of top portions provided with flanges adapted to fit said body portion and one of which is provided with a suitable flange adapted to fit the opposing top portion, handles formed upon said portions, a ventilator formed in one of said portions, a bolt held upon the body portion, lugs formed upon said top portions adapted to co-act with said bolt, and a rack held within said body portion, substantially as described.

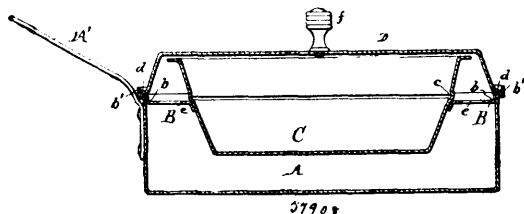
**No. 57,907. Washing Machine.** (*Machine à laver.*)



William Baylis, Winnipeg, Manitoba, Canada, 26th October, 1897; 6 years. (Filed 4th October, 1897.)

*Claim.*—In a washing machine, the combination with the tub or suds box, and a removable cover provided with a central aperture, of a pounder, the shaft of which for a portion of its length is polygonal in cross section, and provided with a vertical row of teeth, a collar loosely mounted to rotate in the central aperture of the cover, the opening through said collar corresponding in shape with the cross section of the shaft, a latch pivoted to the cover and adapted to engage the collar and lock it against rotation, a mutilated gear wheel suitably supported on said cover and engaging the teeth of said shaft, a crank by means of which either the pounder shaft may be rotated to impart a rotary motion to the pounder or the shaft of the mutilated gear rotated to impart a vertical reciprocating motion to the pounder, substantially as set forth.

**No. 57,908, Cereal Cooker.** (*Ustensil de cuisine.*)

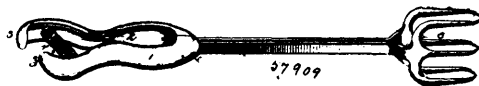


Sidney Shepard & Company, assignee of James Forsyth Foster, both of Buffalo, New York, U.S.A., 26th October, 1897; 6 years. (Filed 18th October, 1897.)

*Claim.*—1st. A cooking utensil, comprising a main or outer vessel, adapted to contain boiling water, an open pan arranged in said vessel and supported above the bottom thereof, and separated from the wall of the vessel for permitting the steam to pass around and over the pan, and a cover applied to the main vessel and separated from the top of the pan by an intervening steam-space, substantially as set forth. 2nd. A cooking utensil, comprising a main or outer vessel adapted to contain boiling water, a supporting ring arranged in the upper portion of said vessel and provided with one or more steam passages, a pan seated in said ring and extending above and below the same, and a raised or chambered cover enclosing the portion of the pan above the supporting ring, and separated from the top of the pan by an intervening steam space, substantially as set forth. 3rd. A cooking utensil, comprising a main or outer vessel adapted to contain boiling water, a supporting ring having one or more steam passages, and provided with a flange resting upon the vessel, and having an upwardly-extending marginal rim, a pan

seated in the supporting ring, and a cover resting upon the flange of the ring, and confined thereon by said marginal rim, substantially as set forth.

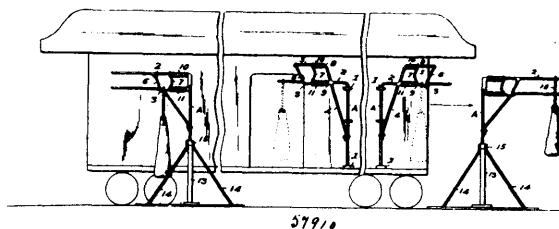
**No. 57,909. Fork.** (*Fourchette.*)



Philip Newton, Grand Harbour, New Brunswick, Canada, 26th October, 1897; 6 years. (Filed 7th September, 1897.)

*Claim.*—1st. A handle having opposite members pivotally connected approximately at their centres to form front and rear grips arranged respectively in front and in rear of the said point of connection, whereby the hand which grasps the handle is adapted to contract either the front or rear portion of the handle by pressure applied either in front or in rear of the point of connection, in combination with engaging devices carried respectively by the handle members, substantially as specified. 2nd. A handle comprising opposite members pivotally connected approximately at their centres to form front and rear grips arranged respectively in front and in rear of the point of connection, said handle members being bowed inwardly or toward each other at their centres to form deflected or divergent front and rear portions, whereby the hand which grasps the handle may compress either the front or the rear grips to swing the handle members in opposite directions, and means for limiting the inward movement of the rear extremities of the handle members, in combination with engaging devices carried respectively by the handle members, and projecting forwardly from the front extremities of said members, substantially as specified. 3rd. The combination of a handle comprising opposite members pivotally connected approximately at their centres, and having front and rear grips arranged respectively in front and in rear of the pivotal point of connection, whereby the handle members may be swung in opposite directions by pressure applied respectively to the front and rear grips, the front extremities of the handle members being longitudinally channelled to form dovetailed grooves or seats, and an actuating-spring interposed between the rear portions of the handle members, to normally hold the front extremities thereof in contact, with engaging devices having cross-sectionally dovetailed extremities fitting removably in said seats or grooves, and fastening-pins engaging said extremities of the shanks and the contiguous portions of the handle members to prevent accidental longitudinal displacement of the engaging devices, substantially as specified.

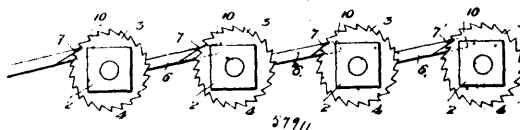
**No. 57,910. Device for Transferring Mail.** (*Appareil pour le transport de la malle.*)



Ezra Campbell, Dayton, Washington, U.S.A., 26th October, 1897; 6 years. (Filed 4th October, 1897.)

*Claim.*—1st. A mail-bag crane, comprising the combination of upper and lower arms, the lower arm being adapted to receive the mail-bag, a cushioned yoke sliding on said arms and adapted to receive the impact of the mail-bag, and means for holding said bag in position, substantially as described. 2nd. A mail-bag crane, comprising the combination with an arm adapted to catch the mail-bag and having a depression for receiving the latter, of a backing for receiving the impact of the bag when caught on the arm, and a pivoted tongue adapted to abut on said arm and hold the bag in the depression, substantially as described.

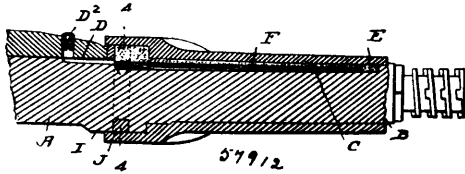
**No. 57,911. Nut-Lock.** (*Arrête-técrou.*)



Freeling Hyson Dedrick, Glidden, Iowa, U.S.A., 26th October, 1897; 6 years. (Filed 4th October, 1897.)

*Claim.*—1st. A nut-lock comprising a bolt, a nut provided with a toothed flange, and a spring pawl provided with a bolt orifice and having its free end formed with a ratchet-shaped tooth, substantially as shown and described. 2nd. A nut-lock comprising the bolt 1, and the nut 2 formed with the flange 3 provided with a series of ratchet-shaped teeth 4, and an annular shoulder 5, in combination with the spring pawl 6 having the flat heel 7 formed with the bolt orifice 8, and having its toe formed with a ratchet-shaped tooth 9 and projecting guard arm 10, substantially as shown and described.

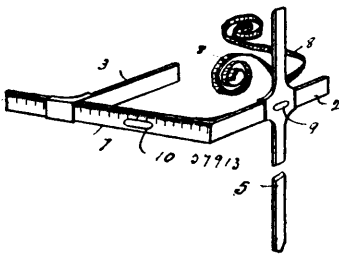
**No. 57,912. Vehicle Axle. (Essieu de voiture.)**



Octavia Sutton Ebert, Galesburg, Illinois, U.S.A., 26th October, 1897; 6 years. (Filed 4th October, 1897.)

*Claim.*—1st. The combination with the axle spindle having a longitudinal oil-chamber, of the absorbent pad extended lengthwise of the chamber and having portions extending from one end thereof to embrace the axle, and springs secured to the pad and to the said end portions thereof to force the same outward, substantially as specified. 2nd. The combination with the axle spindle having a longitudinal oil-chamber and an annular channel, of a pad of absorbent material having a portion extending lengthwise of said chamber and portions embracing the spindle and arranged in said channel, the said pad being formed with oppositely-disposed shoulders at opposite ends, substantially as described. 3rd. The combination with the axle-spindle having a longitudinal oil-chamber and an annular channel with an oil-duct communicating therewith, of an absorbent oil-conveyer arranged in said chamber parallel with the spindle and having at one end integral curved portions seated in said annular channel, a spring extending lengthwise of and secured to the inner side of the conveyer at one end, and independent springs secured to the inner faces of the said curved portions, substantially as and for the purpose specified.

**No. 57,913. Tailor's Measure. (Mesure pour tailleurs.)**



Charles H. Scott, Bloomington, Illinois, U.S.A., 26th October, 1897; 6 years. (Filed 20th September, 1897.)

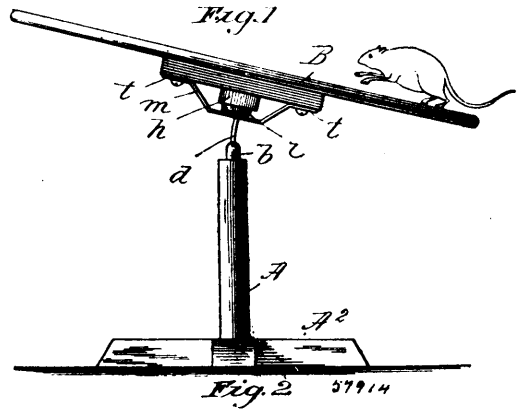
*Claim.*—1st. In a tailor's square, the combination with the graduated back bar, the graduated side bar fixed to one end thereof at a right angle thereto, and an adjustable graduated side bar movably arranged on the back bar parallel to the fixed side bar, of an adjustable vertical bar movable on said fixed side bar, and extending above and below the latter a belt secured to said vertical bar near its lower end, tape measures attached to said vertical bar, and spirit-levels secured to said vertical and back bars.

**No. 57,914. Mechanical Tops Propelled by Living Creatures. (Jouet mécanique.)**

William Rufus Smith, Westfield, Massachusetts, U.S.A., 26th October, 1897; 6 years. (Filed 24th September, 1897.)

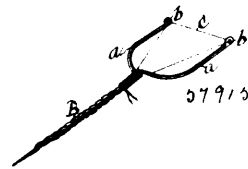
*Claim.*—1st. In a device of the character described the combination with a post or standard having at its upper end the rod *d*, which is bent angularly to the vertical line of the post, of a turn-table mounted on the upper end of said rod, perpendicularly to the length of said bent portion thereof, substantially as described. 2nd. In a device of the character described, the combination with a post or standard *A* having at its upper end the rod *d*, the upper end portion of which is bent angularly to the length of the post, of the turn-table provided at its under side with the socket *j*, and having the downwardly bowed strap which engages the said rod, said socketed turn-table being mounted for rotation on the upper end of said rod *d*, perpendicularly to the length of the bent portion thereof, substantially as and for the purpose set forth. 3rd. In a device of the character described, the combination with a post or standard *A* hav-

ing at its upper end the rod *d*, the upper portion of which is bent angularly to the line of the post, of the turn-table having at its



under side the block *g*, in which is set the hardened metallic bushing *i*, having the socket *j*, which is downwardly flaring, and the strap *m*, having its extremities secured to said block *g*, being intermediately downwardly bowed and having the aperture *n*, which is in bearing engagement against the angularly bent upper portion of said rod *d*, said turn-table being mounted for rotation on the upper end of said rod *d*, perpendicularly to the length of the bent portion thereof, substantially as described and shown.

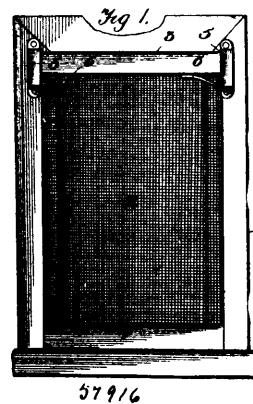
**No. 57,915. Toothpick. (Cure-dents.)**



Henry T. Tissington, Aspen, Colorado, 26th October, 1897; 6 years. (Filed 27th September, 1897.)

*Claim.*—As an improved article of manufacture, the toothpick herein described, formed of a single piece of metal bent at its centre and elongated and sharpened to form a point and twisted from its point to form a straight handle, the material branching from the end of said handle forming a substantially U-shaped portion with the ends of the material bent to form eyes, and a thread passed through said eyes and having its ends twisted about and secured to the twisted handle at the point beyond the junction thereof with the U-shaped portion, all substantially as described.

**No. 57,916. Tension Window Screen. (Store de fenetre à tension.)**

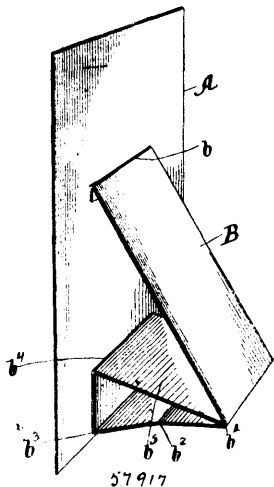


William Scott, Kansas, Missouri, U.S.A., 26th October, 1897; 6 years. (Filed 20th October, 1897.)

*Claim.*—1st. A window screen having upper and lower transverse bars, a flexible screen terminally attached to said bars, vertically-yielding means for supporting the upper bar and attaching the same

movably to a window frame, whereby said upper bar is normally held elevated and is adapted to yield downwardly when strained, and securing devices for detachably fastening the lower bar in its normal position with relation to the window frame, the screen being held taut by the said supporting devices of the upper bar, and the securing devices being adapted to be disengaged to release the lower bar without dismounting the upper bar, substantially as specified. 2nd. A window screen having upper and lower transverse bars, a flexible screen terminally attached to said bars, securing devices for detachably fastening the lower bar at the bottom of a window frame, and yielding means, including guides, for supporting the upper bar upon the window frame and maintaining the same in an elevated position to insure the tautness of the screen, substantially as specified. 3rd. A window screen having upper and lower transverse strips or bars, twin brackets adapted to be secured to a window frame and provided with parallel-sided vertical recesses to receive the extremities of the upper strip or bar, a flexible screen terminally attached to said strips or bars, springs arranged at opposite ends of the upper strip or bar and having terminally against the underside of said strip or bar and the lower end of the recess of the contiguous bracket, whereby yielding upward pressure is applied to the upper strip or bar to maintain the screen in a taut condition, and means for detachably securing the lower strip or bar to the window frame and adapted to be disengaged therefrom without dismounting the upper strip or bar, substantially as specified. 4th. In a window screen, the combination of upper and lower strips or bars, a flexible screen terminally attached to said strips or bars, yielding means for mounting and guiding the upper strip or bar upon a window frame and exerting a normal upward pressure thereon, and means for detachably securing the lower strip or bar to the window frame, said means including a fixed stud or projection on the window frame, an intermediately-pivoted lever adapted at one end to engage said stud, and a retaining pin carried by the lower strip or bar for engagement by the opposite end of the lever to hold the latter in its adjusted position, substantially as specified.

**No. 57,917. Advertising Card. (Carte d'annonce.)**



Charles F. Engstrom, St. Charles, Illinois, U.S.A., 26th October, 1897; 6 years. (Filed 27th September, 1897.)

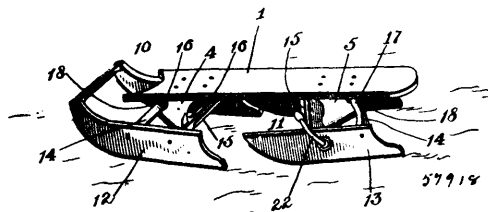
*Claim.*—1st. A folding brace for advertising cards and the like, consisting of a portion secured to the card at a sufficient distance from the bottom to furnish a suitable rest therefor and extending downward and rearward therefrom, a second portion extending from the lower end of the first to the lower portion of the card and secured thereto, said second portion being adapted to fold upon itself, and a brace secured to the intermediate portion of the card and extending therefrom to the angle between the first two portions, the parts being sufficiently elastic to permit of the crowding of the brace upward so as to lie parallel with the card and permit the remaining portions to be folded against the same, substantially as described. 2nd. A brace for advertising cards and the like, consisting of a comparatively stiff strip of material B, having more flexible portions extending transversely across it at  $b$ ,  $b^1$ ,  $b^2$ ,  $b^3$ , and  $b^4$ , said strip being secured to the card A, at  $b$  and between  $b^2$  and  $b^4$  and the portion  $b^4$ , being of proper length to reach the angle  $b^1$ , when the portion between  $b^1$  and  $b^2$  is extended into one plane, substantially as described.

**No. 57,918. Sled. (Traineau)**

Benjamin Franklin Hook, Holmesville, Ohio, U.S.A., 26th October, 1897; 6 years. (Filed 11th October, 1897.)

*Claim.*—1st. In a sled of the character described, the combination with the sled-body 1, and the bearing heads 4 and 5 attached thereto, said bearing heads being angularly disposed with relation to the

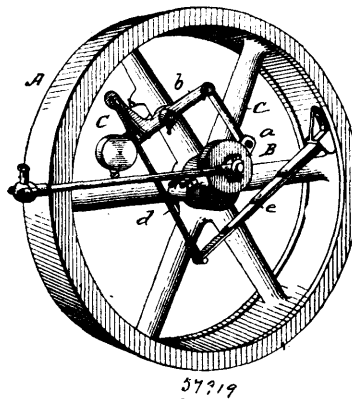
sled-body and reversely disposed with relation to each other, of the forward and rear reversely-acting runner trucks 10 and 11, compris-



ing the runners 12 and 13 and the parallel connecting brace-bars 14 and 15, the bearings 19 carried by said brace-bars, the recesses 20 formed in the bottoms of said bearings, the springs 21 located in said recesses and the axles 18 mounted in said bearing heads and projecting on either side thereof, said projecting ends being journaled in the spring-cushioned bearings 19 carried by the parallel connecting brace bars 14 and 15, substantially as described. 2nd. The combination with a sled provided with independently movable trucks and designed to be steered by the tilting of the sled-body thereon, of the outwardly projecting handles or grasping ears attached to the runners of one of the trucks and adapted to be grasped to control or vary the degree of inclination of the sled-body, substantially as described. 3rd. In a sled of the character described, the combination with the sled-body and the bearing heads attached thereto, said bearing heads being angularly disposed with relation to the sled-body and reversely disposed with relation to each other, of the forward and rear reversely-acting runner trucks, comprising the runners and the parallel connecting-brace bars, the bearings carried by said brace-bars, the recessed formed in the bottoms of said bearings, the springs located in said recesses and the axles mounted in said bearing heads and projecting on either side thereof, said projecting ends being journaled in the spring-cushioned bearings carried by the parallel connecting brace-bars, and the outwardly projecting handles attached to the runners of the rear truck and adapted to be grasped to control or vary the degree of inclination of the sled-body, substantially as described.

**No. 57,919. Governor for Steam Engines.**

(Gouverneur pour machines à vapeur.)



Edwin J. Armstrong, Oswego, New York, U.S.A., 26th October, 1897; 6 years. (Filed 18th October, 1897.)

*Claim.*—1st. In a centrifugal governor, the combination, with a pivoted fly-weight, of a secondary weight adapted to move toward and from the pivotal point of the fly-weight, said movement being in such an arc that for each position of the fly-weight there will be a corresponding point of equilibrium which the secondary weight will seek, substantially as described. 2nd. In a centrifugal governor, the combination, with a pivoted fly-weight, of a secondary weight adapted to move in an arc toward and from the pivotal point of the fly-weight, and means for retarding the movement of said secondary weight, substantially as described.

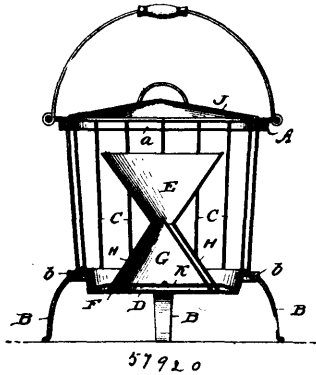
**No. 57,920. Poultry Feeder.**

(Appareil à nourrir les volailles.)

Edwin Ruthven Young, Auburn, Maine, U.S.A., 26th October, 1897; 6 years. (Filed 4th October, 1897.)

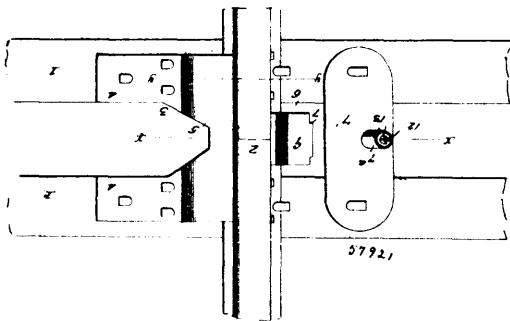
*Claim.*—1st. A device for the purpose described, comprising the slatted frame, the pan supported therein, and the double cone resting in the pan and having notches at its lower edge and the independent inverted cone supported upon said pan, and extending upward within the lower portion of the double cone, as set forth

2nd. The combination with the frame with its rods and pan, of the double cone with notches at its lower edge, and the inverted cone



communicating with the space between the lower cones supported upon the pan with a space between the same and the parallel wall of the lower portion of the double cone, substantially as specified. 3rd. The device described, comprising the upper and lower rings, the vertical rods connecting the same, the pan supported by the lower ring, the double cone supported in the pan and having notches around its lower edge, and the inverted cone supported upon the outer cone and having an opening over the apex of the inner cone and crossed wires secured within the lower cone with their ends projecting through the walls thereof, substantially as and for the purpose specified.

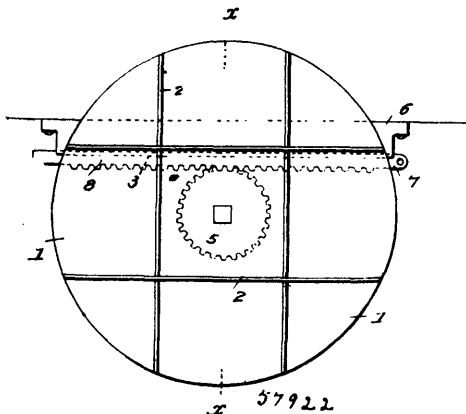
**No. 57,921. Rail Chair. (Coussinet.)**



James Edwin Shope, Dunbar, Pennsylvania, U.S.A., 26th October, 1897; 6 years. (Filed 4th October, 1897.)

*Claim.*—1st. A chair for railway rails, comprising in combination, arms adapted to be spiked to the ties, and provided with an upwardly-extending web-embracing head having outwardly-projecting pins and an outwardly-projecting base adapted to support the rails, said base being provided with an opening and with a bolt-hole, and upon its upper side with a cross-head having an apertured boss, a clamping-plate having holes to receive the pins aforesaid, and an inclined arm provided with a bolt-hole and a bolt passed through the boss and the said arm, and provided with a nut for clamping the parts, substantially as set forth.

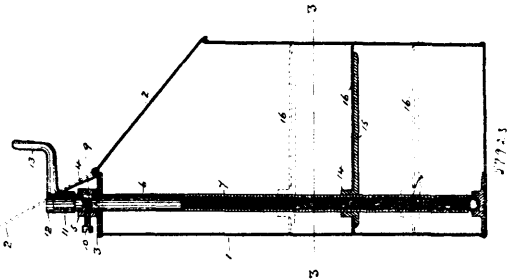
**No. 57,922. Railroad Turntable. (Plaque tournante.)**



Jacob Madara Hess, McKeesport, Pennsylvania, U.S.A., 26th October, 1897; 6 years. (Filed 4th October, 1897.)

*Claim.*—The herein described turntable, comprising the rotatable table 1, having the rack wheel 5, secured to the underside thereof, the rack slide 7, meshing with the teeth of the rack wheel and connected by a dovetail to the support 6, in combination with the circular track 3, having the supporting wheels 4, journaled therein and the table resting on said wheels, substantially as described.

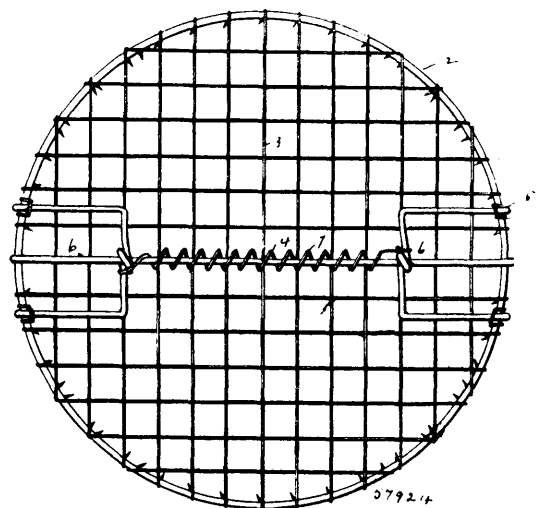
**No. 57,923. Coffee Can. (Bidon à café.)**



Patrick J. Harris, St. Louis, Missouri, U.S.A., 26th October, 1897; 6 years. (Filed 20th October, 1897.)

*Claim.*—1st. In a can, a suitable can proper, a diaphragm in the same of substantially the cross-sectional area of the can, and means for adjusting the position of the diaphragm above the bottom of the can, substantially as set forth. 2nd. In a can, a suitable can proper, a lid adapted to close the upper open end thereof, a horizontal ledge along the edge of which the lid is pivoted, brackets mounted on the ledge adjacent to the lid, a collar carried by the ledge, a bearing at the bottom of the can below the collar, an operating rod having a smooth and a screw-threaded portion, the smooth portion passing through the collar, a peripheral groove formed in the smooth portion between the limits of the collar, a retaining screw carried by the collar and operating in said groove, a casting or frame having an interiorly-screw-threaded boss embracing the screw-threaded portion of the rod, a diaphragm carried by the frame, and means for rotating the rod, the latter projecting a suitable distance above the ledge and collar carried thereby, substantially as set forth. 3rd. In a can, a suitable diaphragm comprising a frame, a boss forming a part thereof, a sheet mounted in said frame and having an opening for the reception of the boss, the latter being interiorly screw-threaded, and a rotatable rod passing through the boss whereby the diaphragm is adjusted to any predetermined position, substantially as set forth.

**No. 57,924. Barrel Cover. (Couverture de barils.)**

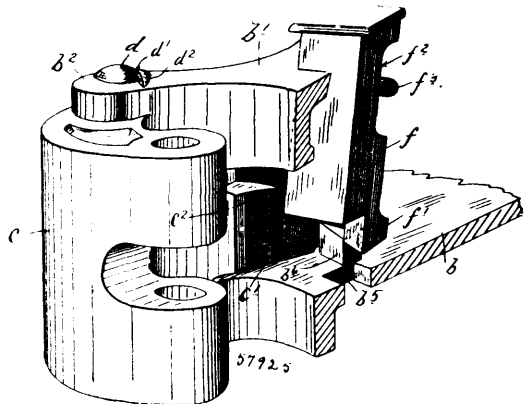


Walter Peter Burke, St. Paul, Minnesota, U.S.A., 26th October, 1897; 6 years. (Filed 11th October, 1897.)

*Claim.*—1st. The combination with the barrel or other receptacle, and the removable top or cover for the same, of the transverse bar or rod secured above the cover, the clamps slidably arranged upon said rod, and provided with prongs, the teeth adapted to engage the side of the receptacle, and the means for automatically drawing said clamps toward each other. 2nd. The combination with the top or cover of the class described, of the transverse rod secured thereto,

the clamps slidably mounted upon said rod, and provided with inwardly projecting prongs or teeth below the cover, and the retracting spring connecting said clamps. 3rd. In combination with a top or cover of the class described, of the transverse rod secured thereto, the clamps slidably mounted upon said rod, and provided with inwardly projecting prongs or teeth below the cover, the retracting spring connecting said clamps, and the upwardly projecting teeth or barbs upon said cover. 4th. As an improved article of manufacture, a cover of the class described provided with projecting teeth or barbs, and means for securing said cover to a receptacle consisting of clamps adapted to engage the receptacle, and means for actuating said clamps.

**No. 57,925. Car Coupler. (Attelage de chars.)**



Edwin C. Washburn, Minneapolis, Minnesota, U.S.A., 26th October, 1897; 6 years. (Filed 18th October, 1897.)

*Claim.*—1st. The combination with a coupler, involving a coupler head, pivoted knuckle and locking dog, of a retaining device acting to secure said dog in its locking position, a sustaining surface or projection carried by the tail of said knuckle, adapted to move under said locking dog and acting to hold said dog upward above a position in which said retaining device is operative to secure the same, and a releasing connection arranged to first release said retaining device and then move said dog into its unlocking position, substantially as described. 2nd. The combination with a coupler, involving a coupler head, pivoted knuckle and locking dog, of a retaining device acting to secure said dog in its locking position, a dog lifting or releasing device involving said retaining device as a section or link thereof, and a surface or projection carried by the tail of said knuckle and acting to hold said dog in position in which said retaining device is inoperative to secure the same, when said knuckle is opened, substantially as described. 3rd. The combination with a coupler, involving a coupler head, pivoted knuckle or jaw and locking dog, of

a hand operated dog-releasing device involving a spring, and a spring holding bracket or buckle constructed to permit said spring to yield less than the limit of its elasticity and then to become rigid to positively release the dog, substantially as described. 4th. The combination with a coupler, involving a coupler head, pivoted knuckle and vertically movable locking dog, of a retaining device acting to secure said dog in its locking or lowermost position, a surface or projection carried by the tail of said knuckle and acting to hold said dog above the position in which said retaining device is active thereon to secure the same, while said knuckle is open, which retaining device is in the form of a hook pivoted to said dog and forming part of the releasing or dog-lifting connection, substantially as described. 5th. In a coupler of the character described, the combination with the pivoted knuckle, of a locking dog or pin mounted in the coupler head, with freedom for vertical and a limited lateral movement, a surface or flange carried by the tail of said knuckle and acting to prevent said locking dog or pin from falling into a locking position while the knuckle is open, and a raised shoulder or ledge on the tail of said knuckle, upon which the lower end of said dog or pin is adapted to be engaged to set said dog so that the knuckle may be opened, substantially as described. 6th. In a coupler of the character described the combination with the pivoted knuckle, of a locking dog or pin mounted in the coupler head, with freedom for vertical and a limited lateral movement, a surface or flange carried by the tail of the knuckle and acting to prevent said locking dog or pin from falling into its locking position while the knuckle is open, a raised shoulder or ledge on the tail of said knuckle upon which the lower end of said dog or pin is adapted to be engaged to set said dog so that the knuckle may be opened, and co-operating stop projections or surfaces, one on said locking dog and the other on the coupler head, which projections or surfaces prevent the lateral movement of said dog or pin when resting upon the lower surface or flange of said knuckle, but permit the lateral movement of the said dog when raised for engagement with the said raised shoulder or ledge of said knuckle, substantially as described. 7th. In a coupler of the character described, the combination with the recessed coupler head  $b^1, b^2$ , of the pivoted knuckle  $c$ , the tail of which is formed with the lower and extended dog-sustaining surface or flange  $c^1$  and the raised shoulder or ledge  $c^2$ , the vertically movable locking dog or pin  $f$  co-operating with the tail  $c^1, c^2$  of said knuckle and provided with the guide lug projection  $f^1$ , and the cam lug  $b^6$  formed on the coupler head and co-operating with said guide lug, all substantially as described. 8th. The combination with a coupler having a vertically movable locking dog or pin, of a dog-lifting device, involving the rock shaft  $k^1$  provided with the arm  $k^6$  with perforated head  $k^7$ , and the link or rod  $k^3$  working loosely through said perforated head  $k^7$ , provided, at its upper end, with the head or stop  $k^9$  and pivotally secured, at its lower end, to the head of said pin or dog, substantially as described. 9th. The combination with a coupler, involving a coupler head, a pivoted knuckle or jaw and a locking dog of a hand-operated dog-releasing device, involving the rod  $k^8$  with head  $k^{10}$ , the buckle  $k^{18}$  in which said rod  $k^8$  and head  $k^{10}$  work, and the spring  $k^{24}$  compressed between one end of said buckle  $k^{18}$  and said head  $k^{10}$ , substantially as described. 10th. A coupler having its knuckle or jaw pivoted to the coupler head on a pintle or pivot pin which is provided with a flattened side  $d^1$  for co-operation with a lug  $d^2$  on said coupler head, substantially as described.



## TRADE-MARKS

Registered during the month of October, 1897, at the Department of Agriculture--  
Copyright and Trade-Mark Branch.

6205. THE CANADIAN CHEMICAL PREPARATION COMPANY, Montreal, Que. Starch, 1st October, 1897.
6206. HILTON E. McNALLY, Saginaw, Michigan, U.S.A. An Ointment or Salve, 2nd October, 1897.
6207. WILLIAM ARCHIBALD YOUNG, Toronto, Ont. Magazine. "The Canadian Journal of Medicine and Surgery," 2nd October, 1897.
6208. THE GURNEY TILDEN COMPANY, LIMITED, Hamilton, Ont. Stoves, 2nd October, 1897.
6209. BOSTON RUBBER SHOE COMPANY, Boston and Malden, Massachusetts, U.S.A. Rubber Boots and Shoes, 2nd October, 1897.
6210. J. SERRAVALLO, Trieste, Austria. Serravallo's Tonic, 4th October, 1897.
6211. ANGIER CHEMICAL COMPANY, Boston, Massachusetts, U.S.A. A Medical Preparation, 4th October, 1897.
6212. GEORGE RICHARD WHITE, Boston, Massachusetts, U.S.A. A Medicinal Preparation, 4th October, 1897.
6213. EDWARD RIPLEY & SON, Bowling Dye Works, Bradford, England. Textile Fabrics and Garments, 5th October, 1897.
6214. THE WHITE MOUNTAIN FREEZER COMPANY, Nashua, New Hampshire, U.S.A. Ice Cream Freezers, 6th October, 1897.
6215. D. S. PERRIN & COMPANY, London, Ont. Biscuits, Candies and Confectionery, 6th October, 1897.
6216. FRANCIS JOHN SABINE, Toronto, Ont. Candy and Confectionery, 8th October, 1897.
6217. THE JOURNEYMEN TAILORS' UNION OF AMERICA, with headquarters for Canada in Hamilton, Ont., through their agent, HUGH ROBINSON, Hamilton, Ont. Clothing, 13th October, 1897.
6218. WILLIAM CARSS, Orillia, Ontario. A fabric made of all long wool, dyed dark blue, with diagonal twill and heavily napped, 15th October, 1897.
6219. T. B. DUNN COMPANY, Rochester, New York, U.S.A. Chewing Gum, 15th October, 1897.
6220. T. B. DUNN COMPANY, Rochester, New York, U.S.A. Confections, such as Cachous, 15th October, 1897.
6221. THE JOHN GRIFFITHS CYCLE CORPORATION, LIMITED, Dublin, Ireland, and Toronto, Canada. Gunpowder, 16th October, 1897.
6222. A. M. SMITH & COMPANY, London, Ont. Dried Fruit, such as Currants, Raisins, &c., 20th October, 1897.
6223. D. S. PERRIN & COMPANY, London, Ont. Biscuits, Candies and Confectionery, 20th October, 1897.
6224. PARKER BROTHERS, Salem, Massachusetts, U.S.A. Games and particularly parlour games, 20th October, 1897.
6225. M. FISHER, SONS & COMPANY, Montreal, Que. Navy Blue and Black Serge, 22nd October, 1897.
6226. THE AMERICAN TOBACCO COMPANY OF CANADA, LIMITED, Montreal, Que. Manufactured Tobacco, including Cigars and Cigarettes, 23rd October, 1897.
6227. CARRIER, LAINÉ & COMPANY, Levis, Que. Stoves, 23rd October, 1897.
6228. ANDREW TREW WOOD, WILLIAM VALLANCE, WILLIAM AUGUSTUS WOOD and GEORGE VALLANCE, Hamilton, Ont. Cutlery, 26th October, 1897.
6229. D. S. PERRIN & COMPANY, London, Ont. Biscuits, Candies and Confectionery, 27th October, 1897.



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6230. GILBERT S. GRAVES, Buffalo, New York, U.S.A. Starch for laundry purposes, 27th October, 1897.
6231. } J. & J. COLMAN, LIMITED, Carrow Works, Norwich, and 108 Cannon  
6232. } Street, London, England. Blue for laundry purposes, 28th  
October, 1897.
6233. BRAND & COMPANY, LIMITED, 11 Little Stanhope Street, Mayfair, and  
Mayfair Works, Vauxhall, London, England. Sauces and  
Relishes, 29th October, 1897.
6234. ABRAM LYLE & SONS, LIMITED, 21 Mincing Lane, and Plaistow  
Wharf, Victoria Docks, London, England. Sugars and Syrups,  
29th October, 1897.

## COPYRIGHTS

Entered during the month of October, 1897, at the Department of Agriculture—  
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9489. MAP SHOWING THE PRINCIPAL LAKES OF THE REGION NORTH OF MONTREAL REACHED BY THE CANADIAN PACIFIC RAILWAY. Joseph Hermyle Leclair, Montreal, Que., 1st October, 1897.
9490. THE CLAN SCHOTTISCHE. By S. M. Early. Arranged by A. W. Hughes. Whaley, Royce & Co., Toronto, Ont., 2nd October, 1897.
9491. ON THE BOULEVARD. Words and Music by Joseph E. Howard. Arranged by Joseph Clauder. Whaley, Royce & Co., Toronto, Ont., 2nd October, 1897.
9492. OUR EMPIRE. Words by Irving Claxton. Music by Frank W. Deane. Willimott H. Billing, Toronto, Ont., 4th October, 1897.
9493. MAP OF THE FORT STEELE MINING DIVISION. Thomas T. McVittie, Fort Steele, B.C., 4th October, 1897.
9494. ONE BOOK SYSTEM. (Système de tenue de livres.) Georges Albert Archambault, Montreal, Que., 5th October, 1897.
9495. SAFEGUARD SYSTEM. (Système de tenue de livres comprenant quatre livres.) Georges Albert Archambault, Montreal, Que., 5th October, 1897.
9496. JONATHAN THREE-STEP. By George Stanton. Willimott H. Billing, Toronto, Ont., 7th October, 1897.
9497. FARM AND HOMESTEAD CATALOGUE AND BUYERS' GUIDE, NO. 3, 1897. The Bailey Donaldson Co., Montreal, Que., 7th October, 1897.
9498. FORMULAIRE DU CODE MUNICIPAL DE LA PROVINCE DE QUÉBEC. Par Maximilien Coupal, notaire, St. Michel-Archange, Qué., 7 octobre 1897.
9499. THE GLORY LAND. (Song.) Words and Music by Herbert Jenner, Toronto, Ont., 8th October, 1897.
9500. A PRIMARY CATECHISM FOR RELIGIOUS INSTRUCTION IN THE HOME AND SABBATH SCHOOL. By Rev. George S. Carson, B.A. A. & W. MacKinlay, Halifax, N.S., 8th October, 1897.
9501. I JUST COME BACK TO SAY GOOD-BYE. Words and Music by Charles K. Harris. Arranged by Jos. Clauder. Whaley, Royce & Co., Toronto, Ont., 9th October, 1897.
9502. ATTENTION. Polka Two-Step. By Capt. I. Vate. The Anglo-Canadian Music Publishers' Association (Ltd.), London, England, 12th October, 1897.
9503. THE DELINEATOR. (A Journal of Fashion, Culture and Fine Arts, November, 1897.) The Butterick Publishing Co. (Ltd.), New York, N.Y., U.S.A., 12th October, 1897.
9504. THE GLASS OF FASHION UP TO DATE. (November, 1897.) The Butterick Publishing Co. (Ltd.), New York, N.Y., U.S.A., 12th October, 1897.
9505. METROPOLITAN FASHIONS. (November, 1897.) The Butterick Publishing Co. (Ltd.), New York, N.Y., U.S.A., 12th October, 1897.
9506. HENDERSON'S BRITISH COLUMBIA GAZETTEER AND DIRECTORY, AND MINING ENCYCLOPÆDIA FOR 1897. Henderson Publishing Co. (Ltd.), Victoria, B.C., 14th October, 1897.
9507. OTTAWA CITY DIRECTORY, 1897-98. Might Directory Company of Toronto, (Ltd.), Toronto, Ont., 15th October, 1897.
9508. THE LIGHT AND THE LURE. By Marx Hawthorne. Designs and Illustrations by J. Stephenson O'Higgins. The Carswell Co. (Ltd.), Toronto, Ont. (On behalf of the Unnamed Author.) 15th October, 1897.
9509. HISTORIC DAYS OF CANADA. (A Calendar, 1898.) Sara Mickle and Mary Agnes FitzGibbon, Toronto, Ont., 15th October, 1897.
9510. STONY LAKE DISTRICT. Compiled from Survey Plans, by Clarence Bell, Toronto, Ont., 15th October, 1897.

9511. GONE TO HIS LAST FIRE. (Song and Chorus.) Words by Harry Dillon. Music by John Dillon. Whaley, Royce & Co., Toronto, Ont., 15th October, 1897.
9512. MAMMY'S LITTLE PUMPKIN COLOURED COONS. (Song and Chorus.) By Hillman & Perrin. Whaley, Royce & Co., Toronto, Ont., 15th October, 1897.
9513. REMUS TAKES THE CAKE. A Southern Melody, Characteristic. (Two-Step March.) By Jacob Henry Ellis. Whaley, Royce & Co., Toronto, Ont., 15th October, 1897.
9514. SHE'S BEEN A MOTHER TO ME. (Song and Chorus.) Words by Walter H. Ford. Music by John W. Bratton. Whaley, Royce & Co., Toronto, Ont., 15th October, 1897.
9515. GEOGRAPHY NOTES. By Geo. E. Henderson & Geo. A. Fraser, of Toronto and Hawkesville, respectively, Ont., 15th October, 1897.
9516. ARITHMETIC EXERCISES FOR FOURTH BOOK CLASSES. By Geo. E. Henderson & W. E. Groves, Toronto, Ont., 15th October, 1897.
9517. THE OLD HUNTER. (Photo.) Lewis Hiram Smith, Strathroy, Ont., 16th October, 1897.
9518. THE TURKEY HUNTER. (Photo.) Lewis Hiram Smith, Strathroy, Ont., 16th October, 1897.
9519. HEART SONGS. By Jean Blewett. George N. Morang, Toronto, Ont., 16th October, 1897.
9520. ONTARIO GAME AND FISHING LAWS. (A Digest of the whole law, Provincial and Dominion.) By A. H. O'Brien, M.A., Ottawa, Ont., 18th October, 1897.
9521. VERNEY'S MONTHLY BANKERS' LIST, OCTOBER, 1897. Compiled by T. Herbert Chesnut, Toronto, Ont., 20th October, 1897.
9522. SUPPLEMENTARY CATALOGUE C. 1897-98. SAFFORD RADIATORS. The Toronto Radiator Manufacturing Co. (Ltd.), Toronto, Ont., 20th October, 1897.
9523. KEY TO HIGH SCHOOL BOOK-KEEPING. By A. Blanchard, C.A., Kingston, Ont., 21st October, 1897.
9524. A RIDE IN MOROCCO. (And Other Stories.) By Arthur Campbell, Ottawa, Ont., 21st October, 1897.
9525. CODE OF CIVIL PROCEDURE, 1897. (Quebec.) By Victor E. Mitchell, B.C.L. John Lovell & Son, Montreal, Que., 23rd October, 1897.
9526. NOTES D'UN CATÉCHISTE. Cadieux et Derome, Montréal, Qué., 23 octobre 1897.
9527. OLD VARSITY. (March and Two-Step.) By Daunt Scott. Whaley, Royce & Co., Toronto, 23rd October, 1897.
9528. PRICE LIST No. 12. WINTER 1897. The S. Carsley Co. (Ltd.), Montreal, Que., 25th October, 1897.
9529. VIVE LAURIER. Marche Brillante, pour Piano, par Alexis Contant. J. G. Yon, Montréal, Qué., 25 octobre 1897.
9530. THE FIRST HARVEST IN CANADA. (Picture.) The Toronto Lithographing Co., Toronto, Ont., 27th October, 1897.
9531. CANADA, SIXTY YEARS AFTER. (Picture.) The Toronto Lithographing Co., Toronto, Ont., 27th October, 1897.
9532. THE FIRE FLY. (Scherzo for Piano.) By W. O. Forsyth. Op. 24, No. 2. Verrall & Draper, Toronto, Ont., 29th October, 1897.
9533. KENTUCKY BABE. (A Plantation Lullaby.) Words by Richard Henry Buck. Music by Adam Geibel. Verrall & Draper, Toronto, Ont., 29th October, 1897.
9534. NOW, WILL YOU BE GOOD. (Comic Song.) Words and Music by T. A. Baker. Verrall & Draper, Toronto, Ont., 29th October, 1897.
9535. YOU'RE NOT THE ONLY TURTLE IN THE TANK. (Comic Song.) Words and Music by T. A. Baker. Verrall & Draper, Toronto, Ont., 29th October, 1897.
9536. FIRST LESSONS IN THE SCIENTIFIC PRINCIPLES OF AGRICULTURE. (For Schools and Private Instruction.) By Sir Wm. Dawson, C.M.G., LL.D., F.R.S. New Edition Revised and Enlarged by S. P. Robins, LL.D. Wm. Drysdale & Co., Montreal, Que., 29th October, 1897.
9537. DESCRIPTION AND RULES FOR A NEW GAME: FOX AND GEESE. Matthias Lamb, Toronto, Ont., 29th October, 1897.

9538. DIAMOND DYE LONGJOHN SPORTS AND GAMES. Wells & Richardson Co., Montreal, Que., 29th October, 1897.
9539. CODE CIVIL DE LA PROVINCE DE QUÉBEC. Mis au courant de la Législation jusqu'au premier octobre 1897. Par O. P. Dorais et A. P. Dorais, avocats. Camille Théoret, Montréal, Qué., 29 octobre 1897.
9540. A HAND-BOOK OF GREEK AND ROMAN HISTORY. Compiled by James MacDonald. The Copp, Clark Co. (Ltd.), Toronto, Ont., 30th October, 1897.
9541. FAIRY TALES. Song from the Comic Opera: "The Idol's Eye." Libretto by Harry B. Smith, Music by Victor Herbert. Edward Schuberth & Co., New York, N.Y., U.S.A., and London, England, 30th October, 1897.
9542. THE TATOORED MAN. Song from the Comic Opera: "The Idol's Eye." Libretto by Harry B. Smith, Music by Victor Herbert. Edward Schuberth & Co., New York, N.Y., U.S.A., and London, England, 30th October, 1897.
9543. THE LADY AND THE KICK. Song from the Comic Opera: "The Idol's Eye." Libretto by Harry B. Smith, Music by Victor Herbert. Edward Schuberth & Co., New York, N.Y., U.S.A., and London, England, 30th October, 1897.
9544. THE RABBIT'S FOOT. (Talk About Yo' Luck.) Song from the Comic Opera: "The Idol's Eye." Libretto by Harry B. Smith, Music by Victor Herbert. Edward Schuberth & Co., New York, N.Y., U.S.A., and London, England, 30th October, 1897.